

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

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COMCAST CABLE : CIVIL NO. 12-859  
COMMUNICATIONS, LLC, :  
et al., :  
Plaintiff :  
  
v. :  
  
SPRINT COMMUNICATIONS : Philadelphia, Pennsylvania  
COMPANY L.P., et al., : February 6, 2017  
Defendant : 9:35 a.m.

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TRANSCRIPT OF MORNING SESSION OF JURY TRIAL DAY 6  
BEFORE THE HONORABLE JAN E. DUBOIS  
UNITED STATES DISTRICT JUDGE

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1           (The following was heard in open court at  
2   9:35 a.m.)

3           THE COURT: Good morning, everyone.

4           ALL: Good morning, Your Honor.

5           THE COURT: Please be seated. Mr.

6   Riopelle, I believe you have an issue?

7           MR. FINKELSON: I think -- it's Mr.

8   Finkelson, Your Honor. I'll present it I think  
9   because it will be easier for me to get through than  
10   Mr. Riopelle.

11           Unfortunately, similar to the situation we  
12   had with one of the jurors over the weekend, Mr.  
13   Riopelle's father-in-law died suddenly over the  
14   course of the weekend, and we wanted to bring that  
15   issue to the Court's attention. We alerted Mr. Heist  
16   to it yesterday evening. We're doing our best to  
17   kind of push through that circumstance, but wanted to  
18   raise it with the Court and present a potential  
19   schedule modification to accommodate the situation so  
20   that Mr. Riopelle towards the end of the week into  
21   the weekend can go home and be with his family for  
22   the services and the like.

23           THE COURT: We certainly will endeavor to  
24   do that.

25           MR. FINKELSON: Well, we were -- what we're

1 thinking about -- and, obviously, Your Honor, it will  
2 depend on how the evidence plays out over the coming  
3 days and how quickly we're able to proceed. But if  
4 we look at how we're putting on our case, we think it  
5 will take up most of the week. Obviously, Comcast  
6 has to complete its case first. Mr. Riopelle is  
7 largely going to be handling the damages aspects of  
8 the case, so that will be towards the end of our  
9 presentation.

10 If the schedule breaks as we think it is  
11 going to break -- and, obviously, we'll play this by  
12 ear, but one thing that we were considering and  
13 wanted to raise with the Court was whether we could  
14 stop at kind of the half day point on Friday to  
15 enable Mr. Riopelle to get home and be with his  
16 family for the visitation that evening. And then  
17 there's services in Virginia over the weekend, and  
18 then on Monday, there is a service in West Virginia  
19 that Mr. Riopelle would like to attend.

20 So what it boils down to is essentially  
21 asking the Court whether we might just do a half day  
22 on Friday, take Monday off so that Mr. Riopelle can  
23 be there. And then he'll be back late Monday evening  
24 and then we would be able to resume.

25 THE COURT: On that schedule, would you be

1 able to finish during the week of the 13<sup>th</sup>?

2 MR. FINKELSON: That would be our  
3 expectation. Obviously, we don't have -- we don't  
4 know exactly what Comcast may put on in its rebuttal  
5 case. But our expectation has always been that the  
6 jury would get the case on the pace we're proceeding  
7 by no later than Wednesday. So if we lose a day and  
8 a half, that would put us -- put the case in the  
9 jury's hands by Friday, as we kind of sketch it as  
10 best we can. And I don't know if the folks on the  
11 other side see it the same way.

12 THE COURT: Well, a little bit will depend  
13 on whether you're going to offer evidence of both  
14 obviousness and anticipation. What is your plan?

15 MR. FINKELSON: We plan to present both,  
16 Your Honor. I don't -- I don't believe that that  
17 will raise a -- I don't believe that will come as a  
18 surprise to the other side or raise a significant  
19 additional time burden as the evidence comes in.  
20 Obviously, it will raise some. But I had that in  
21 mind in speaking to the schedule.

22 THE COURT: Well, I'm certainly going to do  
23 our -- we'll do our very best to accommodate you, Mr.  
24 Riopelle. And I see no reason why we can't adopt a  
25 modified schedule.

1 MR. RIOPELLE: Thank you, Your Honor.

2 THE COURT: First and foremost, you have  
3 our condolences on your loss. How long is your  
4 rebuttal case?

5 MR. GOETTLE: Well, because it's a rebuttal  
6 case, it's going to depend on what we hear this week.  
7 So I don't know that I can give you an estimate. I  
8 would imagine a day or two, but it's -- I think the  
9 schedule, if it works out this way, that sounds right  
10 to me, that the jury would have the case at the  
11 latest, next Friday, maybe earlier, even with the day  
12 and a half in the middle.

13 THE COURT: At the latest, next Friday?

14 MR. GOETTLE: Well, that -- at the latest,  
15 yes, Your Honor.

16 THE COURT: Oh, you mean next Friday?

17 MR. GOETTLE: A week from -- yes. After  
18 Valentine's Day. That's kind of what I've been  
19 targeting as the end -- the end of this case, that  
20 Friday right after. But it could be sooner, Your  
21 Honor. Again, it just depends on how their case  
22 unfolds.

23 THE COURT: That doesn't raise my comfort  
24 level. You estimated it was a two and a half week  
25 long case.

1 MR. GOETTLE: We actually estimated -- I  
2 think both parties estimated two weeks, Your Honor,  
3 and I believe you gave a little grace period thinking  
4 that maybe we were being optimistic. So we have a --  
5 we had a buffer built in from the beginning, as far  
6 as Dan Goettle was concerned. It seemed like we had  
7 a little bit of a buffer.

8 THE COURT: You're right. And --

9 MR. GOETTLE: I didn't want to speak for  
10 anybody else in the room.

11 MR. FINKELSON: The (indiscernible)  
12 Valentine's Day buffer.

13 MR. GOETTLE: Yes.

14 THE COURT: But you're going beyond the  
15 buffer?

16 MR. GOETTLE: Well, I don't think so, not  
17 in terms of trial days, no, Your Honor.

18 THE COURT: All right. Well, we'll --  
19 certainly, we're going to accommodate Mr. Riopelle.

20 MR. GOETTLE: Absolutely.

21 THE COURT: And we'll see what happens.

22 MR. FINKELSON: Thank you, Your Honor.

23 MR. RIOPELLE: Thank you, Your Honor.

24 THE COURT: All right. Ms. Hull.

25 (Pause in proceedings.)

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1 (Jury in, 9:41 a.m.)

2 THE COURT: Good morning, everyone. Please  
3 be seated. Mr. Heist, you may continue.

4 MR. HEIST: Thank you, Your Honor.

5 THE COURT: Good morning, Ms. Riley.

6 THE WITNESS: Good morning, Your Honor.

7 DIRECT EXAMINATION

8 BY MR. HEIST:

9 Q Ms. Riley, just before we broke on Friday, we  
10 were talking about the various steps in your damage  
11 model under the income approach. Very, very quickly,  
12 I'd just like to go back and go through a few of the  
13 slides we talked about on Friday so we can pick up  
14 where we left off. So we have slide 24 on the  
15 screen. Those are the five steps of your damage  
16 model, correct?

17 A That's correct.

18 Q And then moving on to slide 25.

19 (Pause in proceedings.)

20 Q Moving on to slide 25, we talked about  
21 determining the apportionment percentage.

22 A That's correct.

23 Q And just remind the jury what apportionment was  
24 again.

25 A Well, we have "apportionment" defined in the



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1 orange here on the slide. So apportionment is  
2 necessary because we want to separate the value of  
3 the patented steps in Sprint's process for sending  
4 and receiving messages from the value in the  
5 unpatented steps. And this is an acknowledgment that  
6 not all of Sprint's messaging revenue and profit is  
7 due to its infringement of the 870 patent. So I'm  
8 going to be using this word "apportionment" to  
9 describe that concept, profit attributable -- revenue  
10 and profit attributable to the 870 as compared to  
11 revenue and profit attributable to non-patented  
12 steps.

13 Q Then moving on to slide 26, we determine the  
14 apportionment percentage under various scenarios that  
15 were provided to you by Dr. Akl, correct?

16 A Correct.

17 Q And what --

18 A So we heard Dr. Akl discuss his review of the  
19 call flow diagrams provided by Sprint in the case.  
20 So here, we have the received SMS analysis of Dr. Akl  
21 where, for example, if we look at the bottom, we're  
22 analyzing infringement of claim 113, utilizing the  
23 SPS, for messages coming from the inter-carrier  
24 gateway to a Sprint customer where two out of nine of  
25 those steps infringe. And two divided by nine is 22

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1 percent. And then he also analyzed under claim 113,  
2 a Sprint to Sprint message, where two out of seven of  
3 those steps infringe. Two divided by seven is 29  
4 percent. And then I calculated a weighted average  
5 based on the percentage of messages that come from  
6 other carriers to Sprint customers as compared to  
7 Sprint to Sprint. And that yielded at 24 percent  
8 weight average. So, again, that -- the way to think  
9 about that is the percentage of steps that infringe  
10 the 870 patent is 24 percent when we're looking at  
11 claim 113.

12 Q And then we did that for sent SMS messages.  
13 That's slide 27, right?

14 A That's correct. Using Dr. Akl's analysis, we did  
15 sent SMS in the same -- using the same methodology.  
16 We also did the MMS messages. Here, you have the  
17 received MMS messages, same methodology, and the sent  
18 MMS messages, using that same methodology.

19 Q And then you looked at all of the percentages  
20 from the various scenarios that Dr. Akl gave you and  
21 selected the lowest percentage?

22 A That's correct. So all the percentages are shown  
23 here based on my calculations that quantify Dr. Akl's  
24 analysis, and I selected the 24 percent because it is  
25 the lowest. So that means 24 percent of the steps

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1 infringe the 870 patent, and I applied that  
2 throughout my analysis, picking the lowest number  
3 just to be most favorable to Sprint.

4 Q All right. Then we went on to the next step.  
5 You calculate the apportioned revenue per message.  
6 And let's look at slide 33 again and then we'll move  
7 on from where we left off.

8 A Okay. So yeah, briefly, we did see this on  
9 Friday where we're taking the messaging revenue  
10 earned by Sprint. And I'll just focus on the SMS  
11 column, the \$17.226 billion in messaging revenue  
12 earned during the damages period. And I divided that  
13 by the number of messages sent and received in order  
14 to determine revenue per message of .85 cents per  
15 message. So that's just less than one penny per  
16 message.

17 Now, this step brings in the apportionment  
18 analysis that we just reviewed. So we multiply the  
19 24 percent by the revenue per message to get the  
20 apportioned revenue per message. So this is just the  
21 revenue that relates to the 870 patent. And that  
22 calculation gives me .204 cents for each SMS message  
23 and .240 for each MMS message. So, again, revenue  
24 attributable to use of the 870 patent for each  
25 message.

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1 Q All right. So now we're -- that's where we left  
2 off on Friday, so now let's move forward to the next  
3 step in your damage model. It's step three. Could  
4 you explain what that is?

5 A Well, now we're going to look to determine the  
6 apportioned royalty rate. So we'll multiply that  
7 rate by the apportioned revenue per message to  
8 proceed to the damages calculation. So there are six  
9 steps in determining the apportioned royalty rate,  
10 and I'll walk you through each of those steps.

11 Q So let's go to -- let's call them sub-steps  
12 because it's -- we have a series of steps and this is  
13 sub-steps within step number three. So let's go to  
14 the first of those sub-steps. And what is that?  
15 I'll show you slide 35.

16 A In the first step, I determined Sprint's  
17 messaging profitability percentage. And another way  
18 to refer to this percentage is a profit margin. So I  
19 reviewed Sprint's messaging revenue and the costs it  
20 generated -- or the costs it incurred in generating  
21 that revenue in order to determine this profitability  
22 percentage.

23 Q And what fed into that? Let's go on to your next  
24 slide, 36.

25 A What fed into that is the revenue from messaging

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1 that we have just looked at, that \$17 billion number  
2 plus the MMS revenue number. And then the costs  
3 Sprint incurred are incremental costs of providing  
4 messaging. They also incurred costs related to  
5 selling, general, and administrative expenses, which  
6 I've shorthanded here to SG&A as an acronym. And so  
7 I subtract those costs and then divide through by the  
8 same revenue number to calculate the profit margin  
9 for messaging. So this is just unique to messaging.

10 Q So let's take a look at the numbers that fed into  
11 that computation. We'll look at slide number 37.  
12 Could you explain that for us?

13 A So here, down at the bottom of your slide, we  
14 have the revenue again from the prior slide. And  
15 then the incremental costs are in yellow -- and this  
16 was determined by Mr. Webber, who you're going to  
17 hear from after I finish my testimony -- of \$1.112  
18 billion. And that's based on his analysis of network  
19 costs, data center costs, that he'll describe to you  
20 during his testimony. And then also subtracting  
21 costs of \$7.1 billion, which I obtained from my  
22 analysis of Sprint's profit and loss statements for  
23 the CDMA subscribers. So those are the costs it  
24 incurs from the selling and general and  
25 administrative expense side. Taking those numbers

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1 together, performing the calculation, I determined a  
2 53.8 percent profit margin on messaging.

3 Q So let's take a look at the next slide, slide 38.  
4 What have you illustrated there?

5 A This is just a pictorial way for us to think  
6 about what I just said instead of looking at things  
7 in a fraction. So here's a dollar and we're -- the  
8 calculation that I just described shows us that of  
9 each dollar, Sprint pays costs of 46.2 percent, or  
10 46.2 cents of the dollar go to cost, and the  
11 remainder is profit, so that's the green portion of  
12 the dollar. So it's just a way to show you kind of  
13 from a visual perspective what this profitability  
14 looks like. So there's my 53.8 percent that I  
15 calculated for messaging profit.

16 Q So this is a dollar of messaging revenue?

17 A That's correct.

18 Q Okay. Let's discuss the second subset that you  
19 carried out in determining the apportioned royalty  
20 rate.

21 A Well, the second sub-step relates to looking at  
22 Sprint's profit on its services provided to CDMA  
23 subscribers. And so I have Paul, the actor, who  
24 maybe you saw on the Super Bowl last night. He  
25 does -- he works for Sprint now. He worked for

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1 Verizon for a long time. And he is encouraging  
2 customers to switch to the Sprint network. So Sprint  
3 provides data, talk, and text, and other services to  
4 its CDMA subscribers. And I looked at financial  
5 documents that demonstrated the profit Sprint earns  
6 on providing all those services to CDMA subscribers.  
7 And that profit is 23 percent during the period of  
8 infringement. So that's what I think about as  
9 Sprint's normal level of profitability for services  
10 it provides to CDMA subscribers. And we're going to  
11 compare that profit to the profit just on messaging  
12 that I went through on the prior step.

13 Q So let's go on. What is the third sub-step?

14 A The third sub-step, we go back to the dollar.  
15 And you just saw this graphic where we have our  
16 profit of 53.8 percent, but now we have to let Sprint  
17 keep some of that profit because that's what it  
18 normally earns in providing its services to the CDMA  
19 subscribers. So we have part of the green portion of  
20 the dollar being kept by Sprint on the next slide.

21 Q Looking at slide 41.

22 A Right. There's our normal level of profit, the  
23 23 percent that Sprint earns on providing all the  
24 services to its CDMA subscribers. So now we have  
25 30.8 percent of that dollar remaining as excess

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1 profit due to messaging -- on messaging revenue I  
2 should say.

3 Q Now, did that make sense to you, 30.8 percent  
4 excess profit? And if so, why?

5 A It did make sense to me based on other  
6 information, evidence in the record. And so one  
7 thing that I looked at, and I have it for you on the  
8 next slide, as a reasonableness check for this excess  
9 profit is the deposition testimony of Mr. Yarkosky,  
10 who is a Sprint representative. And he was asked at  
11 the top,

12 Question: "Did Sprint have to build say  
13 more cell towers in order to offer text messaging?"  
14 And he answered,

15 Answer: "No, they did not." And he was  
16 asked,

17 Question: "Why didn't they need to build  
18 new cell towers to be able to offer text messaging?"  
19 And he responded,

20 Answer: "The way the text messaging is  
21 delivered via the cellular network, or specifically,  
22 across the RF network, is that the text messages --  
23 and I will even be more specific to a CDMA network.  
24 Text messages are delivered over the air interface  
25 signaling channels. So the existing cell towers were



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1 already in place, the necessary infrastructure at the  
2 bay stations were already in place to support this.  
3 So the RF technology supported text messaging as it  
4 was defined in the standards and built by the  
5 infrastructure suppliers for our bay stations. So  
6 there was no necessity to actually add infrastructure  
7 at the cell towers or to add additional cell towers  
8 to support it."

9 So when I look at this testimony and I  
10 think about the excess profit I just calculated, it  
11 agrees. That's a good reasonableness check because  
12 Mr. Yarkosky tells us that Sprint did not have to add  
13 additional infrastructure to support messaging.

14 Q Did you see any other documents or documents in  
15 Sprint's file that were produced to you that  
16 supported this idea?

17 A Yes, there was another document from Gartner,  
18 which is a large industry -- a group that studies the  
19 industry, the cellular industry. And Gartner had  
20 published a study that stated, "Messaging was a cash  
21 cow for carriers" -- and that was one of the quotes  
22 from the study, if I recall correctly -- because it  
23 had low bandwidth requirements and generated a lot of  
24 revenue. So that was another input that I could use  
25 as a reasonableness check on my excess profit

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1 calculation. It made sense to me that the numbers I  
2 was seeing based on Sprint's business documents that  
3 it produced in the litigation, it made sense to me  
4 that the calculation of profit related to messaging  
5 was much higher than the calculation of profit  
6 related to all CDMA services.

7 Q Did you come up with an analogy to kind of  
8 explain that concept to the jury?

9 A I did. So the next slide has a picture of a bus  
10 lane, and you heard Dr. Akl talk about how the text  
11 messages are traveling in the control channel. So I  
12 think about a bus lane, a dedicated bus lane, that  
13 other cars can't drive in, and the buses carry the  
14 messages for free. They're free riders in that  
15 control channel, which isn't used by the voice  
16 communications -- or is seldom used, I should say.

17 This is another picture with the buses in  
18 their bus lane, and the messages are just riding free  
19 on the buses which are already in that bus lane,  
20 because you recall Dr. Akl was mentioning how in that  
21 control channel, just occasionally, the phones need  
22 to say hello, I'm here, are you there, but it doesn't  
23 have to be monopolized by voice communication. It  
24 just needs to find phones.

25 So the messages are piled on those buses

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1 that are already transiting in that seldom used  
2 control channel. So that's kind of the way that I  
3 visualize this level of profitability and where these  
4 messages are in the network. Of course, it's  
5 completely simplified, but as a layperson -- I'm not  
6 the technical expert, but this is just my  
7 visualization of that concept.

8 Q And what is the fourth sub-step that you used to  
9 calculate the apportioned royalty rate?

10 A Well, the fourth sub-step goes back to our  
11 dollar, and we have our excess profit of 30.8  
12 percent. So Sprint gets to keep the yellow portion  
13 of the dollar, the blue portion of the dollar goes to  
14 pay the cost, and now we need to focus in on that  
15 green portion of the dollar and figure out how much  
16 of that would be paid as a royalty.

17 So the first thing I need to do is multiply  
18 that green portion of the dollar, the excess profit,  
19 by my 24 percent, which is my apportionment.  
20 Remember that's the number -- percentage of steps  
21 that infringe the 870 patent. And that gives me 7.39  
22 percent of the dollar. So Sprint gets to keep that  
23 yellow portion that represents the non-870 steps, and  
24 I now have the excess profitability related to just  
25 the 870 steps.

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1 Q And that's 7.39 percent?

2 A That's correct.

3 Q Now, what is the fifth sub-step that you went  
4 through to determine the apportioned message --

5 A The fifth sub --

6 Q -- pardon me, the apportioned royalty rate?

7 A The fifth sub-step takes us back to the table.

8 So we're at the bargaining table, we're at the  
9 negotiating table. And the parties are going to use  
10 the information I just went through regarding the  
11 profitability attributable to the 870 patent to  
12 estimate a bargaining range. And in order to do  
13 this, I looked at the record to find studies that  
14 related to customers' use of messaging from -- that  
15 Sprint had taken, so customer surveys. And you look  
16 on Nokia's side of the table, Nokia is talking about  
17 a study that showed half of Sprint's subscribers use  
18 MMS. So this is a study that was in the record as  
19 PX-608.

20 Sprint, on the other side of the table, is  
21 saying hold on, I have a study that shows 28 percent  
22 of subscribers are heavy messaging users, so how  
23 about rely on that number to set our bargaining  
24 range? And that study is found in the record at  
25 PX-610. So this is just using documents from

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1 Sprint's -- generated in Sprint's ordinary course of  
2 business relating to the popularity of messaging to  
3 frame this bargaining range so that we can figure out  
4 how much of that profit will be paid as a royalty.

5 Q So let's go to the next slide, 48. Could you --  
6 this is kind of a math computation. Can you explain  
7 what's shown on this slide?

8 A Yeah, this is the math, that's correct, where  
9 we're taking the study relating to MMS, and Nokia is  
10 bringing that in to its negotiating position saying  
11 please pay me half of that 7.39 excess profit as a  
12 royalty. Sprint says hold on a minute, that's too  
13 much. How about just 28 percent of that 7.39? And  
14 the next slide actually shows what the numbers would  
15 be. If we multiply 7.39 percent by 50 percent, that  
16 gives us 3.7 percent. And Nokia says hey, that's  
17 pretty good. What about 3.7 percent of the  
18 apportioned messaging revenue? And Sprint says I  
19 prefer to think about 28 percent of that excess  
20 profit. And if I multiply those numbers together, I  
21 get 2.07 percent. So that's how the parties would  
22 determine this bargaining range. Again, based on  
23 these documents showing customers' use of the  
24 messages -- messaging, they come to this range of  
25 2.07 percent to 3.7 percent.

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1 Q All right. What's the next sub-step?

2 A The next sub-step is to determine the apportioned  
3 royalty rate. And so this is our last sub-step. And  
4 I applied the Georgia-Pacific factors. And these are  
5 factors from a very famous court case, patent  
6 infringement case, from about 40 years ago, where  
7 Georgia-Pacific, the paper company, was involved. So  
8 these are steps that I apply in every analysis of  
9 patent damages, and I have a listing of all the  
10 factors here. There are 15 of them. And I  
11 considered all 15 of them. But in coming to the  
12 final apportioned royalty rate, I relied on two  
13 particular factors to help me form my conclusion.

14 The first factor is shown here in yellow,  
15 number 11, considering the extent of use by the  
16 infringer and evidence probative of the value of that  
17 use. So I've been talking with you all a lot about  
18 the number of messages and the profitability that  
19 Sprint has earned on messaging over and above that on  
20 its normal business -- normal CDMA services. So that  
21 extent of use is incorporated in the analysis, and  
22 the evidence probative of the value of that use is  
23 certainly the profit. So that tends to weigh in  
24 Nokia's favor.

25 Then the second factor that I think is very

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1 important is number 13, which is highlighted here,  
2 and that's the portion of the realizable profit that  
3 should be credited to the patented invention, as  
4 distinguished from non-patented elements, business  
5 risks, or improvements added by infringer. So this  
6 is where I take a look at what Sprint has contributed  
7 to the provision of messaging. And Sprint has -- you  
8 know, does a lot of advertising, they had a Super  
9 Bowl ad last night, they built out the voice network.  
10 So there's negotiating power that comes with those  
11 contributions. So I think it's important to consider  
12 that factor and note that it would weigh in Sprint's  
13 favor as the parties are sitting at the negotiating  
14 table.

15 Q So based on your analysis of the Georgia-Pacific  
16 factors, and in particular, the two that you  
17 highlighted, number 11 and number 13, what was your  
18 conclusion as to the rate?

19 A My conclusion as to the rate is shown here on the  
20 next slide. In our negotiating range of 2.07 to 3.7,  
21 if the parties meet in the middle, that's about 2.9  
22 percent, but I think Sprint's negotiating power  
23 brought by -- brought on by its contributions in, you  
24 know, providing the CDMA services, would push the  
25 rate down to 2.75 percent of apportioned revenue. So

Ms. Riley - Direct

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1 that's my conclusion as to the apportioned royalty  
2 rate.

3 Q And let's translate that to the dollar image that  
4 we looked at earlier. Let's go to the next slide.

5 A So here, we have the dollar, and you've already  
6 seen this picture. And there's the patent -- I'm  
7 sorry, profit attributable to the 870. And now we  
8 can show the portion of the dollar that goes to pay  
9 the royalty and what Sprint gets to keep. So you can  
10 see here the royalty, Nokia's portion of the dollar,  
11 is 2.75 percent, and Sprint keeps 51.05 percent of  
12 the apportioned message revenue as its profit.

13 Q And that's the last of the six sub-steps that  
14 went into the determination of the apportioned  
15 royalty rate, correct?

16 A That's correct.

17 Q All right. So let's go back to our list, and now  
18 we're on to step number four. Could you please  
19 explain what that step is?

20 A Well, now we're going to go back to the  
21 chalkboard, as it were, and calculate the royalty per  
22 message. So we have a slide -- the next slide shows  
23 that multiplication in a similar setup to what you've  
24 already seen where we're taking the apportioned  
25 revenue per message for SMS messages of .204 cents,



Ms. Riley - Direct

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1 multiplying that number by the apportioned royalty  
2 rate of 2.75 percent, to get the royalty per message  
3 of 0.00561 cents.

4 So this is where I started out on Friday  
5 with you all talking about this number, and if you  
6 remember, I said if you had a penny divided into  
7 100,000 pieces, 561 of those pieces represent the  
8 royalty per message. So now I've gone through with  
9 you the steps and how I calculated that royalty per  
10 message.

11 Similarly, for MMS, we have the apportioned  
12 revenue per message of .240 cents. I multiply the  
13 MM -- excuse me, multiplying that by the apportioned  
14 royalty rate of 2.75 percent give me the royalty per  
15 message of 0.00660 cents. So our penny divided into  
16 100,000 pieces, 660 of those pieces represent the  
17 royalty per message for MMS messages.

18 Q All right. Let's go back though. Now we're on  
19 to step number five of your damage model.

20 A And step number five is the final step. We're  
21 going to calculate the total reasonable royalty  
22 damages. And, again, going back to the chalkboard on  
23 the next slide, bringing forward the royalty per  
24 message for SMS and MMS messages that I just reviewed  
25 with you, multiplying the number -- the royalty per

Ms. Riley - Direct

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1 message by the number of messages. So for the SMS  
2 messages, it's the 2.66 trillion messages that I  
3 discussed with you on Friday, and for the MMS  
4 messages, there are 61.5 billion messages, which  
5 doing the math gives us reasonable royalty damages  
6 for SMS messages of \$149,572,805, and for MMS  
7 messages we have \$4,062,100. So that's our  
8 reasonable royalty damages adequate to compensate  
9 Comcast for Sprint's use of the 870 patent.

10 Q And then if we add those two numbers together, we  
11 get the number you talked about at the beginning of  
12 your presentation on Friday, is that right?

13 A That's correct. So you saw this slide at the  
14 outset of my testimony on Friday. Adding those  
15 numbers together gives us \$153,634,905 in damages.  
16 And, again, that's through September 30<sup>th</sup>, 2016,  
17 based on Sprint's messages sent and received. And  
18 there's the number of messages and the royalty per  
19 message.

20 Q Now, I don't think we addressed this on Friday.  
21 There are three claims that are asserted here: claim  
22 one, claim seven, and claim 113. Does claim 113 have  
23 the same start date for damages as claims one and  
24 seven?

25 A No, it doesn't.

Ms. Riley - Cross

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1 Q Have you determined the amount of damages if the  
2 jury were only to find infringement of claim 113?

3 A Yes. This slide shows -- claim 113, as you  
4 recall, issued upon re-examination of the 870 patent,  
5 and that patent issued on October 4<sup>th</sup>, 2011. So if  
6 you only find claim 113 infringed, the damages would  
7 be \$112,792,859, and that's because of the later  
8 issuance date of the re-examined patent.

9 Q And then one last question. If the jury were  
10 only to find infringement of claims one or seven  
11 based on the HLR rather than the other databases,  
12 what should the number be?

13 A Well, the HLR only relates to received messages,  
14 so you would divide the \$153.6 million in half, which  
15 would give you \$76.8 million.

16 Q Thank you very much, Ms. Riley.

17 (Pause in proceedings.)

18 CROSS-EXAMINATION

19 BY MR. RIOPELLE:

20 Q Good morning, Ms. Riley. How are you?

21 A Good morning.

22 Q So let's just start off, for you whole analysis,  
23 right, you assumed infringement, right?

24 A Yes.

25 Q So if this jury finds that there is no

Ms. Riley - Cross

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1 infringement, that Sprint doesn't infringe the 870  
2 patent, they can forget everything that you and I are  
3 about to talk about, right?

4 A That's correct.

5 Q Good. And they would probably like that. All  
6 right. So let's start with your analysis. One of  
7 the things that you were trying to do, right, was  
8 determine the profits for SMS and MMS?

9 A Correct.

10 Q And to do that, you started out by trying to  
11 figure out what the revenue was for SMS and MMS,  
12 right?

13 A Correct.

14 Q But I noticed during your discussions with Mr.  
15 Heist, you didn't explain to the jury how you  
16 determined the revenue that Sprint made on the SMS  
17 and the MMS, did you?

18 A Not in detail. It was -- it involved a process  
19 where we looked at a number of different categories  
20 of revenue reported by Sprint in the financial  
21 documents that they produced.

22 Q Well, isn't it actually difficult to determine  
23 Sprint's revenue on SMS and MMS because Sprint  
24 doesn't track it as a standalone service?

25 A Well, they did track it as a standalone service

Ms. Riley - Cross

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1 for many periods we looked at. There are several  
2 categories. One is casual. One is overage. And so  
3 that's the standalone service. And then when it  
4 reports revenue in a bundle, which is probably how  
5 you all pay for your phone service, we were able to  
6 use documents that Sprint produced that showed how  
7 they report that revenue for separate services to the  
8 tax authorities.

9 Q But, in fact, right -- you've just mentioned the  
10 bundle -- almost -- most Sprint customers pay one  
11 price, both for the data and for their voice and for  
12 their messaging, right?

13 A Yes, many Sprint customers do pay one price. But  
14 it's funny, actually, some customers still do the a  
15 la carte.

16 Q But very few, right?

17 A Very -- it's very few --

18 Q Right.

19 A -- but I was just surprised to see that, you  
20 know, because you always think gee, everybody buys  
21 the bundle. Yes, but it's not impossible to  
22 segregate out the messaging revenue. Just based on  
23 the documents that Sprint gave us from the -- from  
24 the tax reporting, they gave percentages for how  
25 they -- what revenue is attributable to message, what

Ms. Riley - Cross

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1 revenue is attributable to voice, and so on.

2 Q But you had to try to figure it out and calculate  
3 it out, right? Sprint doesn't have -- doesn't report  
4 revenue for SMS and MMS alone, does it?

5 A What do you mean doesn't have revenue?

6 Q No, it doesn't report it. There's no -- there  
7 was no document. Sprint didn't hand you a document  
8 and say here's the revenue for SMS and MMS?

9 A No. No, they most certainly did not.

10 Q All right.

11 A But that's very common in my work is, you know,  
12 you have to do some calculations in order to  
13 determine the revenue that you're focused on. So,  
14 you know, we only want to look at messaging revenue.  
15 That's what we were able to determine from Sprint's  
16 documents.

17 Q All right. Well, you and I can disagree on  
18 whether you calculated the revenue correctly, but  
19 that's where you started, right, trying to get to the  
20 revenue?

21 A Yes.

22 Q Okay. And then -- so then to determine profits,  
23 you then had to determine costs, right, so you could  
24 subtract the costs from the revenue?

25 A Right. Well, there were two different profit

Ms. Riley - Cross

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1 calculations, one related to messaging and the other  
2 related to CDMA profitability. So the CDMA  
3 profitability, which is that normal profit of 23  
4 percent, that was taken from Sprint's profit and loss  
5 statement that it prepares in its ordinary course of  
6 business for the CDMA network. For the messaging  
7 costs, you're correct, I did have to determine costs.  
8 Q Right. And that's -- I'm sorry, that's all I was  
9 trying to get. I'm just trying -- so the jury knows  
10 we're on the same page. You had to determine costs,  
11 right?

12 A That's correct.

13 Q Okay. And I'm right that you relied on the cost  
14 analysis by Mr. Webber, right?

15 A Yes, in part.

16 Q And -- now, the jury hasn't heard Mr. Webber yet.  
17 Presumably, he's going to tell them though he did his  
18 cost analysis? Do you agree?

19 A I hope so.

20 Q Okay.

21 A Yes.

22 Q But let's just summarize because you relied on  
23 it. You did not include cost -- as part of the costs  
24 the spectrum costs, did you?

25 A That's correct.

Ms. Riley - Cross

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1 Q Right. And you understand the spectrum to be the  
2 air interface between the cell phone and the tower?

3 A Right, that's what Mr. Yarkosky testified  
4 about --

5 Q Right, but --

6 A -- that --

7 Q -- you agree, right, that you can't send a text  
8 message without the spectrum?

9 A Right. It's just that Sprint did not have to  
10 incur additional costs to provide messaging.

11 Q Well, but let's also talk about some of the other  
12 costs. You also didn't include the costs of the bay  
13 stations or the towers, did you?

14 A Right. So I showed Mr. Yarkosky's testimony that  
15 relates to why that's not necessary.

16 Q And we'll get to Mr. Yarkosky's testimony. I'm  
17 just trying to -- so the jury understands what costs  
18 you didn't include. So we know you didn't include  
19 the costs for spectrum, and we know you didn't  
20 include costs for the bay stations, and we know you  
21 didn't include the costs for the towers. And it's  
22 also true, right, that you didn't include the costs  
23 for the mobile switching centers?

24 A Well, I think Mr. Webber is going to testify  
25 about the costs he included. I can certainly agree



Ms. Riley - Cross

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1 with you that there are costs that are I guess what  
2 we would characterize as sunk costs, again, based on  
3 Mr. Yarkosky's testimony, who I know we will hear  
4 from, so don't -- you know, I don't want to get you  
5 going. But yeah, these costs are not incremental to  
6 the provision of messaging.

7 Q Right. So, again, I just -- just so the jury  
8 understands, you didn't include the costs of the  
9 spectrum, you didn't include the costs of the bay  
10 stations, you didn't include the costs of the towers,  
11 and you didn't include the costs of the mobile  
12 switching centers, right?

13 A Right, for the reasons I testified.

14 Q And you agree, right, that you can't send a text  
15 message with the spectrum, right?

16 A I agree. Now, from the -- from the technical  
17 perspective, again, you know, I'm not the right  
18 person to ask these questions of, but I do know that  
19 in the record there are documents that demonstrate  
20 all carriers are earning margins based on analyses  
21 provided by, for example, Morgan Stanley, of 90  
22 percent on messaging. This is from a 2008 FCC study.  
23 So this is not something that I'm kind of making up  
24 out of thin air.

25 Q Well, I think --

Ms. Riley - Cross

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1 A There are doc -- you know, I went over the  
2 Gartner analysis saying how messaging was a cash cow  
3 for carriers. And we have this FCC study with Morgan  
4 Stanley saying the same thing. So I do want to point  
5 out that there is supporting evidence for the  
6 calculation I determined --

7 Q I know, but --

8 A -- as to messaging --

9 Q -- but, Ms. Riley --

10 A -- profitability.

11 Q And I appreciate that. And your counsel is going  
12 to have a chance to come back up and ask you  
13 questions. But really, my question was you agree,  
14 right, that you can't send a text message without the  
15 spectrum?

16 A I'm pretty sure you need the spectrum to send a  
17 text message.

18 Q And you can't send a text message without the  
19 tower?

20 A I think that's correct as well.

21 Q And you can't send a text message without the bay  
22 station?

23 A I'm not -- I think so.

24 Q And you --

25 A I agree.

Ms. Riley - Cross

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1 Q -- can't send a text message without the mobile  
2 switching center, right?

3 A Agree.

4 Q And so let's dig down into some of those costs.  
5 You're aware, aren't you, that Sprint spent \$17  
6 billion on spectrum, right?

7 A I'll take your word for it. I -- spectrum is  
8 extensive.

9 Q All right. And you -- well, there was documents  
10 produced in this case that showed how much Sprint  
11 spent on the spectrum, right?

12 A I believe so.

13 Q Okay. So you didn't include that \$17 billion in  
14 your cost analysis for the profits, right?

15 A Again, for the reasons I discussed, you're --

16 Q Right.

17 A -- I agree.

18 Q And, in fact, one of the things you were talking  
19 about was the free rider thing, right? In fact, if  
20 we could call up slide 44 I think from your  
21 presentation. This was the slide you put up on here,  
22 right?

23 A Yes, sir.

24 Q And you were saying that one of the reasons --  
25 this was -- you were explaining that's why you

Ms. Riley - Cross

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1 wouldn't need to do the cost, because they're just --  
2 they're just riding free on that, right?

3 A That's a character -- well, that's basically what  
4 I said.

5 Q Right.

6 A I mean I did take some costs out, but yes.

7 Q Well, now --

8 A This is why messaging is profitable, highly  
9 profitable, is how I phrased it.

10 Q According to your opinion, right.

11 A Correct.

12 Q But -- so to get into this lane though, there  
13 would have to be an on ramp, wouldn't there?

14 A Yes, we have to get the buses onto the lane.

15 Q Right. Just like you have to get in the lane --  
16 an on ramp, in a text message sense, you have to get  
17 on -- into the system of a spectrum, right?

18 A Yeah, I mean the buses are already on the lane --

19 Q And that on ramp --

20 A -- right? They're the like hello, I'm here, you  
21 can call me.

22 Q Right. And that on ramp would cost money,  
23 wouldn't it?

24 A Yeah, the on ramp was -- is there.

25 Q No, but to get --

Ms. Riley - Cross

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1 A They don't --

2 Q -- into the channel --

3 A Well, isn't that -- that's what you're saying. I  
4 mean I'm not disputing that Sprint has spent a lot of  
5 money putting together a network for voice calls and  
6 that this control channel is in that network, it's  
7 there, and the messages travel in it. So I'm not --  
8 you know, I agree --

9 Q Right.

10 A -- Sprint spent a lot of money --

11 Q Okay. And you didn't --

12 A -- to build the network, but my point is just  
13 that messaging is highly profitable because it uses  
14 the infrastructure that's already there.

15 Q Well, let's talk about some of the other costs  
16 you didn't include, right? You also said you didn't  
17 include the towers and the bay stations, agreed?

18 A Right, those are already there.

19 Q All right. And you're aware, right, that Sprint  
20 has about 40,000 bay stations and towers around the  
21 country, right?

22 A I don't have the number memorized, but I'm sure  
23 you're correct.

24 Q And you're aware, right, that the average cost of  
25 one of those cell towers or bay stations is about

1 \$200,000?

2 A Okay.

3 Q So when you multiply that out that comes out to  
4 \$8 billion? And you --

5 A It's -- they've spent -- you know, I keep  
6 agreeing with you, which I'm probably not supposed to  
7 do, but they've spent a lot of money developing the  
8 network.

9 Q Right. And they also in the mobile switching  
10 centers -- you're aware that they have over 90 mobile  
11 switching centers, right?

12 A They have a lot of mobile switching centers.

13 Q And each one of those mobile switching centers  
14 costs about \$1.2 million? So --

15 A Agree -- I agree.

16 Q So when you do that multiplication, that's over  
17 \$100 million that you also didn't include?

18 A I described my analysis, and I know we're going  
19 to differ, but those costs go into the CDMA  
20 profitability, Sprint gets to keep that profit,  
21 messaging earns profit over and above that. I'm not  
22 the only one who came to that conclusion. Gartner,  
23 Morgan Stanley, came to the same conclusion. And  
24 that's the excess profit available to pay as a  
25 royalty.

Ms. Riley - Cross

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1 Q Well --

2 A So I think we agree.

3 Q I just wanted to -- I agree -- how do I say it?

4 I agree that we disagree, but I just want this jury

5 to understand what costs you included and what costs

6 you didn't. And so I just wanted the jury to

7 understand that if you think about the \$17 billion in

8 spectrum and the \$8 billion on the towers and the bay

9 stations, and the additional \$100 million on the

10 switching centers, that's about \$25 billion that you

11 did not include when you were trying to figure out

12 the profits for messaging, correct? Do you agree

13 with me on that?

14 A For messaging.

15 Q Right.

16 A Can I -- but can I extend my -- can I answer the

17 question fully?

18 THE COURT: The answer is yes, you can.

19 THE WITNESS: Thank you, Your Honor.

20 There's a lot of revenue relating to voice that would

21 also use all of this infrastructure, and I have

22 not -- of course not included that. That's not what

23 we're talking about here, just to kind of simplify

24 what Mr. Riopelle is talking about as compared to

25 what I'm talking about.

1 BY MR. RIOPELLE:

2 Q So --

3 A So those costs would relate to that revenue. I  
4 mean it's a separate calculation.

5 Q But you would agree, right -- I mean you relied  
6 on Mr. Webber's analysis?

7 A I did.

8 Q Right. And so you would agree with me, right,  
9 that if this jury concludes that he should have  
10 included those costs, so that you should have  
11 included those costs, that if they agree with me on  
12 that, then that undermines your entire calculation  
13 because you haven't included those costs, correct?

14 A I'd agree. I would just hope the jury would also  
15 consider the corroborating evidence I discussed from  
16 Morgan Stanley, the Federal Communications  
17 Commission, and Gartner relating to the high level of  
18 profitability associated with messaging. But yes, I  
19 agree.

20 Q Now, you talked about Mr. Yarkosky's testimony.

21 MR. RIOPELLE: In fact, could we put it up?  
22 I believe it's on slide 42 of Ms. Riley's dep.

23 BY MR. RIOPELLE:

24 Q And this was the testimony that you were talking  
25 about Mr. Yarkosky said?



Ms. Riley - Cross

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1 A That's correct.

2 Q That they didn't -- he said that they didn't have  
3 to build towers just for messaging, right?

4 A Correct.

5 Q All right. Now, these questions on here, they  
6 were asked during his deposition, right?

7 A Yes.

8 Q And they were asked by a Comcast lawyer, right?

9 A I believe so.

10 Q But Comcast lawyer didn't ask the next question,  
11 did he? Comcast lawyer didn't ask Mr. Yarkosky if  
12 Sprint takes into account the costs of the towers and  
13 the spectrum and other things when they're trying to  
14 figure out the cost of a message, did he?

15 A I got lost there.

16 Q So he says they didn't -- he says they didn't  
17 have to build additional towers for messaging. Do we  
18 agree with that?

19 A Correct.

20 Q Okay. And you inferred from that that oh, so  
21 there's no costs for the towers?

22 A No, no, no, no. No.

23 Q You -- sorry, let me rephrase. And I'm not  
24 trying to trick you. I'm just trying to make sure  
25 that we're all on the same page so that the jury and

1 you understand my next question. We agree, right,  
2 that Mr. Yarkosky testified they didn't have to build  
3 additional towers for messaging?

4 A Correct.

5 Q Correct.

6 A I agree.

7 Q And so you took from that that there is no cost  
8 for the towers to be attributed to messaging?

9 A I think that's fair enough.

10 Q Right.

11 A That -- yeah, that is what corroborates my  
12 calculation of profitability --

13 Q Right.

14 A -- on messaging.

15 Q They didn't ask Mr. Yarkosky that question? They  
16 didn't ask him do you attribute the cost of towers to  
17 messaging when you're trying to figure out the cost  
18 of sending a text message, did they?

19 A In the deposition?

20 Q Yes.

21 A I don't -- I don't know.

22 Q And don't you think if they asked Mr. Yarkosky  
23 that question, he would have actually said of course  
24 we attribute the cost of the towers and the cost of  
25 spectrum and the cost of other things when we're

Ms. Riley - Cross

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1     trying to figure out the cost of what a sentence --  
2     what it costs to send a message?

3     A     Right, and that's what's included in that 23  
4     percent normal profit margin. That's how Sprint  
5     reports its profitability on the CDMA network in the  
6     ordinary course of business. So I've seen those  
7     documents, and in my performance of the hypothetical  
8     negotiation, I've given Sprint credit for the normal  
9     profit. It gets to keep that profit because it's  
10    already, as you point out, incurred those costs --

11    Q     Well --

12    A     -- in building out the network.

13    Q     Let's go to that topic. Let's talk -- you're  
14    talking about the excess profits now, correct?

15    A     Yes, sir, I'm talking about, yes, the normal  
16    profit from provision of CDMA services.

17    Q     Right. And so -- and just -- again, just to make  
18    sure the jury is on the same page that you and I are,  
19    you calculated -- you said that the excess -- I'm  
20    sorry, you said that the profit on messaging was  
21    about 53.8 percent I think?

22    A     Exactly.

23    Q     Right. And then you said that the profit  
24    normally on the CDMA I think you had down as 23  
25    percent?

1 A That's correct.

2 Q And so you determined that there was an excess  
3 profit of about 31 percent just from messaging,  
4 right?

5 A Correct.

6 Q Okay. And the overall profitability for CDMA,  
7 which is the 23 percent, that includes voice and  
8 messaging and data, right?

9 A And some other services as well, but yes.

10 Q Right. And -- but we've already established that  
11 when you were doing the profit margins for messaging  
12 you didn't -- you didn't include the towers and the  
13 switches and the spectrum, right?

14 A Right, because the free rider effect, riding in  
15 the control channel, the infrastructure is already  
16 present --

17 Q Right.

18 A -- for the messages.

19 Q But the overall profitability of 23 percent for  
20 the data, the messaging, and the texting, that did  
21 include the costs for spectrum and switches and  
22 towers, right?

23 A Well, it's the way that Sprint keeps its  
24 profitability in the ordinary course of business.

25 Q Well --

Ms. Riley - Cross

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1 A So it's how they account for a CDMA network. So  
2 this is all the costs that Sprint aggregates and  
3 applies to that CDMA revenue.

4 Q So if you're comparing the profits for messaging  
5 against the profits for the overall CDMA and you're  
6 included that \$25 billion of costs for overall CDMA,  
7 but you've taken it out for messaging, isn't the  
8 messaging profit going to obviously look much higher?

9 A But the messaging profit -- I mean Sprint was  
10 already offering voice services when it introduced  
11 the messaging. It had built out the network, it had  
12 bought the spectrum, it tracks that profit in its  
13 ordinary course on the CDMA network. I don't -- I  
14 don't know how else to explain it --

15 Q Well --

16 A -- other than --

17 Q What is --

18 A -- to keep repeating --

19 Q What is --

20 A -- sorry.

21 THE COURT: Let her -- let her finish.

22 MR. RIOPELLE: I'm sorry, Your Honor.

23 THE WITNESS: -- other than to keep  
24 repeating my analysis where Sprint is tracking its  
25 profitability on the CDMA network for its

Ms. Riley - Cross

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1 subscribers, it earns 23 percent. That's during the  
2 damages period. My calculation of profit on  
3 messaging was 53.8 percent. That agrees with  
4 documents in the record that say messaging is highly  
5 profitable. Sprint did not have to add additional  
6 infrastructure to offer messaging. That is how we  
7 determined the incremental profit. So I'm not -- in  
8 that 23 percent normal profit I'm taking Sprint's  
9 numbers. That's how they report it.

10 Q Right.

11 A Right.

12 Q Right. I'm not disagreeing with you.

13 A Oh, okay.

14 Q No, all I'm disagreeing -- I'm just trying to  
15 point out, again, so the jury understands the  
16 analysis is that when you -- when you had the  
17 profitability for CDMA, which includes voice, data,  
18 and messaging, you included the \$25 billion for  
19 spectrum and other things like that, but when you  
20 compared it to the messaging you didn't include those  
21 costs in the -- in the profits for messaging.

22 A Right.

23 Q So isn't it right then that obviously the profits  
24 for messaging are going to be much higher if you  
25 didn't include the same costs on both of them?

Ms. Riley - Cross

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1 A Yeah, for messaging, I deter -- I included the  
2 incremental cost of providing messaging as well as  
3 the selling, general, and administrative costs.

4 Q Now, that 23 percent overall profitability, is it  
5 fair to characterize that as an average  
6 profitability?

7 A That's fair.

8 Q Okay.

9 A It's over a period of time.

10 Q So -- but I'm sorry. You know, I'm not trying to  
11 trick you. I want to make sure you and I --

12 A Well, it's one number for many years, so it has  
13 to be, by definition, some average.

14 Q Are you finished? I didn't want to -- I don't  
15 want to interrupt, sorry.

16 A I'm finished.

17 Q Okay. I just want to make -- when I say average,  
18 it's an average profitability from all the services,  
19 right?

20 A Yes, that's correct.

21 Q Right. So in your -- in your --

22 A So, for example, the standalone casual message  
23 subscriber -- and we've all been this person. As  
24 recently as 2013, people were still paying 15 cents a  
25 message in the data that we saw. So, you know,

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1 that's highly profitable for Sprint because, as you  
2 saw, the average revenue per message is around a  
3 cent, a little bit less than a cent. So I had to  
4 take different categories of information to determine  
5 that average normal profit, you're correct.

6 Q All right. So if messaging you believe is the 53  
7 percent?

8 A I think it's 53.8 percent.

9 Q Sorry. I'm not trying -- yes, okay, 53.8  
10 percent. So something has to be lower than the -- so  
11 there's an average, something has to be lower than  
12 the 23 percent, right?

13 A Yes.

14 Q All right. So let's -- just for purposes of our  
15 conversation, let's assume that the voice profits are  
16 lower, they're below 23 percent.

17 A We don't have to assume. We know what's lower.

18 Q Is voice? Do you agree?

19 A Wholesale messages have --

20 Q Okay.

21 A -- a lower margin --

22 Q All right. Well --

23 A -- as does prepaid subscribers, pay-as-you-go  
24 subscribers, have a lower profit margin than post-  
25 paid. Like, you know, I have post-paid, so I just



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1 pay every month and I just use what I use, but people  
2 who like to buy 100 minutes up front and only use  
3 that much, they have a lower margin. So that --  
4 those categories are what combine -- yes, there are  
5 different levels of profitability for different types  
6 of services.

7 Q So under your analysis of excess profits, if one  
8 of those -- one of those categories was accused in  
9 this case, because there would be no excess profits,  
10 would your analysis have to come out that there would  
11 be no damages?

12 A You mean -- I'm not sure I followed you. So  
13 certain of the messages aren't infringing?

14 Q Well, no. You said you -- what you did, again,  
15 just so we're on the same page, you believe that  
16 messaging has a 53.8 percent profitability. And so  
17 then you subtracted out the average profitability of  
18 23 percent to approximately 31 percent, correct?

19 A Correct, excess --

20 Q Do you agree?

21 A -- profitability, yes.

22 Q So if one of the services has profitability below  
23 23 percent -- because that's an average  
24 profitability, so some of the stuff has got to be  
25 below it. If there's profitability below that, there

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1 would be no excess profits for that service, right?

2 So then doesn't your conclusion -- your analysis mean  
3 there couldn't be any damages?

4 A Well, that would actually increase the excess  
5 profit if there's a service that has a lower normal  
6 profitability lower than 23 percent. Let's say its  
7 20 percent. If we subtract that from 53.8 percent,  
8 it gives you more excess profitability. I'm sorry if  
9 I'm going the wrong way.

10 Q You compared the average profitability of 23  
11 percent to what you believe is Sprint's profitability  
12 on messaging of 53 percent, correct?

13 A Correct.

14 Q If something here -- if some service -- other  
15 service was accused, and let's say that had a  
16 profitability of only 20 percent, using your excess  
17 profitability of 23 percent, don't you agree that 23  
18 minus 20 would mean that there was negative three?

19 A No, you're actually backwards. I'm sorry, I'm  
20 not trying to be difficult, but that actually  
21 increases the excess profit.

22 Q Okay. Let's try --

23 A That's why it's important to average all the  
24 services. That's why I averaged all the services.

25 Q Let's try this again. Messaging is the accused

1 service, right?

2 A That's correct.

3 Q All right. And that was 53 percent, correct?

4 A Correct.

5 Q And the average profitability of Sprint is 23  
6 percent, correct?

7 A CDMA, yes.

8 Q CDMA. So you did 53 minus 23 to get your excess  
9 profitability, right?

10 A Correct.

11 Q Let's say that another service was accused and it  
12 was 20 percent, and then you had that --

13 A Profit.

14 Q 20 percent profit. And the average profitability  
15 at Sprint is still 23 percent. And so if you go 20  
16 minus 23, wouldn't you get negative three?

17 A Does the 20 percent go into the 23 percent --

18 Q It's part --

19 A -- calculation?

20 Q It's part of it, yes.

21 A Okay. So why isn't the 23 percent calculation  
22 good anymore? Or what happened in your hypothetical?  
23 I just want to follow it.

24 Q The point I'm trying to make is that there would  
25 be no excess profits. So under your methodology,

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1    there could be no damages, right?

2    A    If -- yeah, if the numbers that Sprint has  
3    produced relating to its CDMA network for provision  
4    of all CDMA services are wrong and it's not making  
5    any profit, then --

6    Q    But --

7    A    -- then my calculation would have to be different  
8    based on different inputs.

9    Q    Well, that's actually --

10   A    There's a lot of information I reviewed in coming  
11   to this calculation, so I'll just leave it at that.

12   Q    Well, and, actually, let's look at one thing you  
13   did do in this case.

14               MR. RIOPELLE:  If we could call up Exhibit  
15   14.2 from her report?

16               THE COURT:  What report?

17               MR. RIOPELLE:  From the reply report, I'm  
18   sorry.

19               THE COURT:  14.2?

20               MR. RIOPELLE:  It was an exhibit.  It was  
21   the schedule to her reply report.  It's not -- sorry,  
22   it's not an exhibit in the trial, if that makes  
23   sense.

24   BY MR. RIOPELLE:

25   Q    So this is the -- your analysis for MMS

1     profitability, correct?

2     A     Correct.

3     Q     And you see at the bottom that it's -- you  
4     determined that the profitability on MMS was 5.2  
5     percent, correct?

6     A     Correct.

7     Q     And 5.2 percent I think you would agree with me  
8     is less than 23 percent, correct?

9     A     That is correct.

10    Q     And so if you were just doing the -- your excess  
11    profits on MMS alone, there would be no excess  
12    profits on MMS alone, would there?

13    A     Yeah, MMS is less profitable than SMS.

14    Q     Correct.

15    A     So in that 53.8 percent, that includes MMS and  
16    SMS.

17    Q     Right. So if only MMS was accused in this case,  
18    under your excess profit method, there would be no  
19    excess profits and so there would be no damages under  
20    your methodology, correct?

21    A     Yeah, under that calculation, you're correct.

22    Q     All right. But, in fact, you couldn't let that  
23    happen, and that's why you combined MMS with SMS so  
24    that you could get that number above 23 percent,  
25    correct?

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1 A Well, it's my understanding that SMS and MMS are  
2 both accused.

3 Q So --

4 A So I'm not, you know, doing anything nefarious.  
5 I'm just taking the accused messages into account in  
6 my analysis.

7 Q But you agree if you had done the MMS alone,  
8 there would be no damages?

9 A There would be -- yes. There would be no excess  
10 profit for the parties to share as a royalty.

11 Q All right. So let's put aside the excess  
12 profits. Let's go to the next step in your analysis.  
13 And, again, just so we're on the same page, after you  
14 came up with the excess profits, you had to determine  
15 what portion of the profits were attributable to the  
16 870 patent, right?

17 A Correct.

18 Q And that's -- and that's what you called  
19 apportionment?

20 A Yes, that's correct.

21 Q And for your apportionment, you relied on Dr.  
22 Akl's analysis, correct?

23 A I did, regarding the number of infringing steps  
24 from the call flow diagram.

25 Q Right. And I think you testified on Friday that

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1 what you were looking for and what you asked Dr. Akl  
2 was the percentage I'm talking about, or the  
3 percentage of steps in sending the message that  
4 infringed the 870. Do you recall that?

5 A Yes.

6 Q Okay. And -- but you were here for Dr. Akl's  
7 testimony, right?

8 A Yes, I was.

9 Q And he didn't include all the steps in his  
10 analysis, did he?

11 A I don't know.

12 Q Don't you --

13 A I --

14 Q Don't you recall Dr. Akl saying that he didn't --  
15 he did not include the routine steps?

16 A I think he was asked about -- I don't recall him  
17 saying that.

18 Q You don't recall Mr. Finkelson asking him on his  
19 step analysis did you include a step from the handset  
20 to the tower, and he said I didn't include that?

21 A Okay.

22 Q And --

23 A So that would make sense based on my analysis.

24 Q Well, but you were looking --

25 A Right? That's the CDMA 23 percent profit?

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1 Q Sorry, I just -- I don't -- I keep thinking  
2 you're finished and then you say something else, so I  
3 don't want to step over you, so I want to make sure.  
4 You were looking for all the steps to send and  
5 receive an SMS or MMS message, right?

6 A From the call flow diagram that's been produced  
7 that showed the steps in the message, sending and  
8 receiving --

9 Q But you --

10 A -- so I asked Dr. Akl to describe which of those  
11 steps use the 870 patent.

12 Q But you --

13 A So that's just based on -- I just did it again  
14 and I'm sorry. But that's just based on Sprint's  
15 document.

16 Q But you agree, right, that when somebody sends an  
17 SMS or an MMS message the first place it goes is from  
18 their phone to the tower, right?

19 A Right. So, like I said, we've incorporated that  
20 concept by letting Sprint keep the 23 percent normal  
21 profit from the operation of the CDMA network.  
22 Messaging is on top of that, highly profitable based  
23 on what everybody knows in the industry. And that's  
24 how the calculation works.

25 Q We're talking about the step analysis that Dr.



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1 Ak1 performed at your request, correct?

2 A Yes.

3 Q And you are looking for what number of the steps  
4 in sending or receiving an SMS message could be  
5 attributable to the 870 patent, correct?

6 A Correct.

7 Q And he counted the steps that he believes  
8 infringe the 870 from the call flow diagram, correct?

9 A Correct.

10 Q But he did not include all of the steps in  
11 sending or receiving an SMS message, as he testified  
12 last week?

13 A I believe he testified about the call flow  
14 diagram and the number of steps shown and which of  
15 those steps read on the 870.

16 Q Correct, but he did -- and the jury will remember  
17 that he said I did not include the routine steps?

18 A So I don't want -- I don't want to misremember  
19 his testimony, but to the extent he said that, then  
20 that would be incorporated in the 23 percent.

21 Q But wouldn't your -- if he didn't include certain  
22 of the steps, aren't your percentages then incorrect  
23 because if he included more steps, your percentages  
24 would go down? Do you agree?

25 A I agree with if you include more steps -- if the

1 denominator is bigger, the percentage decreases.

2 Q Right.

3 A Now, the question of whether those steps -- the  
4 call flow diagram he's looking at only had so many  
5 steps, and he told me which of those steps infringe.

6 Q But that call flow diagram doesn't include all of  
7 the steps for sending an SMS message from this  
8 handset to this handset, does it?

9 A It's a Sprint document. I mean there were three  
10 different witnesses who testified that it represented  
11 the call flow diagram. So, you know, I don't -- I'm  
12 not the technical expert, but that's my  
13 understanding.

14 Q Well, you agree, right, if this jury believes Dr.  
15 Akl didn't include all of the steps he should have  
16 included and then you relied on that analysis, that  
17 undercuts your calculations, doesn't it?

18 A Well, assuming the jury does not agree that  
19 Sprint gets to keep the 23 percent normal profit and  
20 everything it provides to its CDMA customers is  
21 included in that 23 percent, and that's off the table  
22 for a royalty. If they also don't agree with that  
23 concept, then you're correct.

24 Q All right. I'd like now to turn to your  
25 hypothetical negotiation and your consideration of

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1 the Georgia-Pacific factors, okay?

2 A Okay.

3 Q Okay. Now, one of the things you claim is that  
4 Nokia and Sprint would have known about the growth of  
5 messaging in the future, right?

6 A Correct.

7 Q And do you recall -- remember Dr. Akl testifying  
8 about the growth of messaging?

9 A Yes.

10 Q Right. And he said that the growth of -- that  
11 messaging took off because of the introduction of the  
12 smart phones, right?

13 A Well, he referenced the Blackberry in 2002, which  
14 was kind of the first time that we all had messaging  
15 capabilities in our hands. So that was one of the  
16 factors. And then he referenced the smart phone  
17 introduction, the iPhone, in 2007, which was a little  
18 bit later in time. But I would say certainly the  
19 introduction of the Blackberry, as well as the  
20 interoperability between carriers in 2004, was really  
21 what launched these messages to the levels, you know,  
22 that we saw over the last 12, 13 years.

23 Q Right, because it was easier -- they had the --  
24 if you remember on the Blackberry, it had the  
25 keyboard, right?

1 A The physical keyboard --

2 Q The phys --

3 A -- yes.

4 Q And so it was much easier for people to send  
5 messages using that keyboard within the virtual  
6 keyboard that came on the iPhone, right?

7 A Yeah, I -- what's the question? Is the  
8 Blackberry easier to use than an iPhone? I think so.  
9 That's not your question.

10 Q No. It wasn't even close.

11 A I missed the physical -- I miss my physical  
12 keyboard.

13 Q No, I'm just confirming that the reason messaging  
14 became so popular was because of the smart phones  
15 like the Blackberry and then the iPhone and stuff.  
16 Do you agree with that?

17 A I think that yeah, that -- I mean certainly the  
18 introduction of the Blackberry and the iPhone really  
19 brought messaging to new levels.

20 Q But the 870 patent has nothing to do with the  
21 Blackberry or the iPhone, does it?

22 A No, I think it has to do with the provision of  
23 messaging.

24 Q Right. So you can't say that the growth of  
25 messaging is due to the 870 patent, can you?

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1 A No, I don't think that's what I'm saying at all.

2 Q Now, another one of the points that you made I  
3 believe on the hypothetical negotiation is that  
4 Sprint and Nokia when they were sitting down at the  
5 table would have to assume that the patent is valid,  
6 right?

7 A Correct.

8 Q And -- but that when Nokia sold the patent to  
9 Comcast there were concerns about validity, correct?

10 A I haven't seen -- well, what I said was I haven't  
11 seen any evidence that Comcast and Nokia had a  
12 similar understanding.

13 Q Well, but didn't you know, right, because you did  
14 look at some evidence that Comcast didn't really have  
15 any serious concerns about the validity of the 870  
16 patent when they bought it?

17 A I'm not saying that they didn't believe the  
18 patent was valid. What I'm saying is that there is  
19 not this absolute certainty between the parties as to  
20 validity and infringement as we're required to assume  
21 under the hypothetical negotiation. So Comcast and  
22 Nokia were operating at arm's length in a -- in their  
23 deal for the patent, and they're not required to have  
24 that same understanding. They can walk away from the  
25 deal. They don't have to understand together the

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1 patent is valid and infringed, as the hypothetical  
2 negotiation requires us to.

3 Q But you didn't -- you don't -- you're not  
4 testifying -- part of your opinion isn't that Comcast  
5 had serious concerns about the validity of the 870,  
6 are you?

7 A No, no, I was just saying that I don't think  
8 Nokia and Comcast had that same understanding that  
9 Nokia and Sprint are required to have at the time of  
10 the hypothetical negotiation.

11 Q Okay. I'd also like to turn now to Georgia-  
12 Pacific factor three, and what I'd like to do is call  
13 up slide 51 from your deck. And this is just so you  
14 can reference it and the jury can reference it.  
15 These are the Georgia-Pacific factors that you talked  
16 about, correct?

17 A Yes, that's correct.

18 Q And so if we're looking at Georgia-Pacific factor  
19 three, that's the -- you would agree with me, right,  
20 that's the nature and the scope of the license?

21 A Yes, sir, correct.

22 Q And so you would agree, right, that in this  
23 hypothetical negotiation, Nokia would be giving a  
24 license to Sprint, right?

25 A Correct.

1 Q And, in fact, it would be a non-exclusive  
2 license, right?

3 A That's correct.

4 Q And just so everybody understands, a non-  
5 exclusive license means that Nokia could also license  
6 to other people also, right?

7 A Yes.

8 Q But when Nokia sold the patent to Comcast it sold  
9 it to them, right? It didn't just license it?

10 A I don't want to quibble with you, but it did have  
11 a license granted back, Nokia.

12 Q Comcast gave a license back to Nokia, but I'm  
13 asking what -- Nokia sold the patent to Comcast,  
14 right?

15 A Yes, it did.

16 Q Okay. And you would agree with me, right, that  
17 owning a patent is more valuable than just renting a  
18 patent?

19 A Well, I think in real life that is probably true.  
20 But certainly we have in real life licensees who are  
21 able to monetize patents. They don't own the patent,  
22 but they're granted a license. And they, in turn,  
23 grant licenses to others. So they're able to enjoy  
24 revenue streams related to royalties.

25 Here, in Comcast's case, we have Comcast --

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1 well, that's probably enough. So we don't know. It  
2 depends on the circumstance as to whether purchasing  
3 a patent is more valuable than licensing a patent.

4 Q So is -- I'm just trying to figure out what your  
5 testimony is. Is your testimony that it's not more  
6 valuable to own a patent than it is to just rent it?

7 A Well, when you're asking me in the abstract  
8 outside the context of the hypothetical negotiation  
9 and the analysis required by the law in determining  
10 patent damages I was just pointing out that there  
11 could be a licensee of a patent who doesn't own it,  
12 who then sub-licenses to other parties and is able to  
13 enjoy revenue from sub-licensing. That would be  
14 greater than what the patent owner is enjoying. But  
15 in the context of the hypothetical negotiation, those  
16 types of considerations aren't relevant because the  
17 law tells us we have to look at use made of the  
18 invention by the hypothetical licensee, who is Sprint  
19 in this case.

20 Q But you agree, right, that the license under the  
21 hypothetical negotiation that Com -- sorry, that  
22 Nokia would give to Sprint would be non-exclusive,  
23 right?

24 A It would be, that's correct.

25 Q And you understand under the law that a non-



1 exclusive licensee doesn't get to license the patent,  
2 is that correct?

3 A Under the law as set forth in determining patent  
4 damages, it's just the use made of the patent.  
5 There's no consideration, at least not in my  
6 analysis, as to whether Sprint could then, in turn,  
7 sub-license --

8 Q Let me put --

9 A -- to another party.

10 Q Let me put it this way. You agree that by buying  
11 the patent, Comcast has a lot more rights to it than  
12 Sprint would have just renting the patent under the  
13 hypothetical negotiation?

14 A I don't -- Comcast obtains the patent, but Sprint  
15 is the licensee, the hypothetical licensee. So  
16 they -- you know, "a lot more" is the phrase you used  
17 I think. That's a little bit imprecise. Sprint  
18 gains the rights through the hypothetical negotiation  
19 to utilize the patent to provide SMS and MMS  
20 messaging. So that's the rent it's paying as -- you  
21 know, the damages are the rent that it's paying.

22 Q Okay. Let's -- again, I'm just -- I'm  
23 actually -- well, nevermind. Under the hypothetical  
24 negotiation, Sprint would get the right to use the  
25 patent, right?

1 A That's correct.

2 Q When Comcast bought the patent from Nokia,  
3 Comcast got the right to use the patent, right?

4 A It did.

5 Q When Comcast bought the patent from Nokia,  
6 Comcast bought the right to assert the patent against  
7 others, correct?

8 A It did.

9 Q Under the hypothetical negotiation, Sprint  
10 doesn't get the right to assert that patent against  
11 others, does it?

12 A You're correct.

13 Q And under -- when Comcast bought the patent from  
14 Nokia, Comcast gets the right to license the patent  
15 to others, correct?

16 A Yes, it does.

17 Q And under the hypothetical negotiation, Sprint  
18 does not get the right to license the patent to  
19 anyone else, does it?

20 A No, it doesn't. It just gets the right to use it  
21 for --

22 Q To use it.

23 A -- the infringing messages.

24 Q All right. I'd like to turn now to Georgia-  
25 Pacific number five on your screen. And you agree,

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1 right, that that's the commercial relationship  
2 between the licensor and the licensee?

3 A Yes, that's correct.

4 Q So in other words, that's the commercial  
5 relationship in this case between Nokia and Sprint?

6 A Correct.

7 Q Correct? Now, you know that leading up to the  
8 time of the hypothetical negotiation, Nokia had been  
9 selling phones to Sprint, right?

10 A They had been selling some phones to Sprint, yes.

11 Q All right. So Sprint was a customer of Nokia's  
12 at the time of the hypothetical negotiation, right?

13 A Yeah, I think the phones represented something  
14 like four percent of their phones. I mean they were  
15 a small customer. Nokia was a small customer.

16 Q Well, you know that Sprint bought \$750 million  
17 worth of phones from Sprint. Do you consider that a  
18 small customer?

19 A Percentage-wise, yes. Sprint buys a lot of  
20 phones.

21 Q If we -- and I'll -- I want to also focus on --  
22 or just touch briefly on Georgia-Pacific factor  
23 number six. I think when you were discussing  
24 Georgia-Pacific factor number six in your report you  
25 said that you understood from Dr. Akl there was no

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1 way to design around the 870 patent and, in fact, you  
2 have to have the 870 patent to send and receive  
3 messages? Do you recall that?

4 A That's correct.

5 Q All right. But you've been sitting in this  
6 courtroom all week, right?

7 A Yes, I have.

8 Q And you understand that the 870 patent requires  
9 that the server has to be external to the cellular  
10 network, right?

11 A I believe that's correct.

12 Q All right. So doesn't it make sense that the  
13 obvious alternative to the 870 patent is to have the  
14 messaging server internal to the cellular network?

15 A You would have to ask Dr. Akl.

16 Q All right. I want to turn to another topic now.  
17 It's your opinion, right, that Sprint and Nokia, the  
18 hypothetical negotiation, would have agreed to a  
19 running royalty, right?

20 A Correct.

21 Q Which means, obviously, that Sprint would have  
22 paid Nokia a fee every time Sprint sent or received a  
23 message?

24 A That's correct.

25 Q Well, let's look at some of the agreements that

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1 you reviewed in this case. Excuse me, let's start  
2 off with the Nokia-Comcast patent purchase agreement.  
3 You agree there that Comcast paid, Nokia received, a  
4 \$600,000 lump sum payment, right?

5 A That's correct.

6 Q And let's look at some of the -- think about some  
7 of the other agreements that you've seen in this  
8 case. You reviewed Sprint's agreement with a company  
9 called Smart Call, right?

10 A Yes, I think so.

11 Q And that was a lump sum payment, wasn't it?

12 A Yeah, I believe that payment was made in  
13 settlement in litigation, and in my experience,  
14 payments made in settlement of litigation tend to be  
15 lump sum --

16 Q It was a lump sum?

17 A -- one time payments.

18 Q Right. And you reviewed Sprint's agreement with  
19 CellTrace, right?

20 A That's correct.

21 Q And that was a lump sum also, right?

22 A Yeah, similar to the agreement you just  
23 referenced. The name is escaping me. That was also  
24 entered into in settlement of litigation. I think  
25 the CellTrace agreement also had a unique feature in

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1 that it specifically said the amount paid could not  
2 be used to determine a reasonable royalty. So I knew  
3 from looking at it that that was off the table for  
4 the purposes of my analysis.

5 Q And I wasn't asking you about that. All I'm  
6 asking you is, and I think you agreed, it was a lump  
7 sum payment, right?

8 A Right, paid in settlement of litigation. I just  
9 wanted to point out all the facts relating to the  
10 agreement.

11 Q And you reviewed Sprint's agreement with a  
12 company called Intellect Wireless, right?

13 A Yes.

14 Q And that was a lump sum payment also, wasn't it?

15 A Also entered into in settlement of litigation,  
16 yes.

17 Q Well, let's talk about some -- about Comcast's  
18 agreement with RPX, right? That wasn't in settlement  
19 of litigation, was it?

20 A No, RPX is a completely different animal --

21 Q Right. But --

22 A -- which the -- so one thing you all haven't  
23 heard about is part of Comcast's defensive strategy  
24 that Mr. Finnegan and Mr. Marcus and Mr. Dellinger  
25 talked about is that Comcast has entered into

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1 agreements with a couple different companies. One is  
2 called RPX, where Comcast pays money to RPX and  
3 receives a license to all the patents in RPX's  
4 portfolio so that it can use those patents  
5 defensively. So, you know, when they were saying  
6 AT&T comes in and puts down a pile of patents,  
7 Comcast opens its drawer, puts out its patents, and  
8 say let's figure this out, RPX patents are included  
9 in that pile that Comcast can then use. So that's  
10 sort of a really different way of thinking about  
11 patent protection and negotiating these types of  
12 deals. So it's different.

13 Q Did Comcast pay a lump sum payment to RPX for  
14 that license?

15 A Yes, all of RPX's agreements are lump sum.

16 Q And did Comcast pay a lump sum payment for its  
17 agreement with Allied Security Trust?

18 A Yeah, Allied Security Trust is another defensive  
19 patent aggregator and they paid a lump sum as well  
20 for coverage to their entire portfolio.

21 Q So, in fact, all of the agreements that we've  
22 looked at in this case were all lump sum payments,  
23 weren't they?

24 A All of the agreements are lump sum payments, yes.  
25 The settlements of litigation are lump sum, the RPX

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1 and Allied Signal Trust are lump sum as well.

2 Q Now, I'd like to turn back to the hypothetical  
3 negotiation. And, again, just so we're all on the  
4 same page, you would agree with me, right, that what  
5 we're trying to figure out and what the jury is  
6 trying to figure out in the hypothetical is what  
7 Sprint and Nokia would have agreed to for Sprint to  
8 license the patent from Nokia, right?

9 A Correct, for use made of the invention according  
10 to the jury instructions.

11 Q All right. So let's look at Nokia. Now, you're  
12 aware, aren't you, that Nokia was involved in putting  
13 together the GSM standard, right?

14 A This -- the technical details I'm not as familiar  
15 with, but we can keep going. I mean I'm not  
16 disputing it.

17 Q Well, so you would agree, wouldn't you, that if  
18 Nokia was involved in putting together the GSM  
19 standard, they would probably have a pretty good idea  
20 what the value of a patent would be that was using  
21 that standard, right?

22 A Well, I think it depends on at what point in time  
23 we're talking about Nokia's involvement was with the  
24 GSM standard work group --

25 Q Well --



Ms. Riley - Cross

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1 A -- as compared to when it sold this patent to  
2 Comcast, because, as I testified on Friday, Nokia's  
3 fortunes by 2010 had deteriorated. I guess  
4 "fortunes" is the wrong word. Nokia's operating  
5 results were declining. It had almost zero market  
6 share in the United States and it turned to a  
7 strategy of monetizing its patents, which is what  
8 resulted in this patent sale. So, you know, we need  
9 to consider at what point in time Nokia is involved  
10 in the GSM standard-setting body as compared to the  
11 circumstances -- its operating results in 2010 and  
12 subsequently.

13 Q And we'll -- and we'll get to that. We'll get to  
14 that. I'm just trying to get you -- well, in fact,  
15 Nokia did an evaluation of this patent, didn't it?

16 A Well, I've seen a document that I think has come  
17 up in court regarding from the inventor.

18 Q Right.

19 A Is that the document you're talking about?

20 Q Yeah. Is this the document that's on your  
21 screen?

22 A Yes.

23 MR. RIOPELLE: And if we can go to the last  
24 page?

25 THE COURT: What document is on the screen?

Ms. Riley - Cross

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1 MR. RIOPELLE: It's DX-150, Your Honor.

2 (Pause in proceedings.)

3 MR. RIOPELLE: If we can go to the last  
4 page?

5 BY MR. RIOPELLE:

6 Q And do you see where it says "Value of the  
7 Invention?"

8 A Yes.

9 Q And this was filled out by the inventor's  
10 manager, correct?

11 A I think that's right.

12 Q Do you see it says at the top, "To be completed  
13 by the manager?"

14 A Yes.

15 Q And you can see, right, that on a scale of zero  
16 to five, the manager rated this invention as a two,  
17 right?

18 A Yes, I see that.

19 Q Which means it was modest? Right, that's what it  
20 says?

21 A Right.

22 Q Okay. Now, you also -- you were testifying a  
23 couple seconds -- a minute ago about, you know,  
24 Nokia's position in 2010, right?

25 A Yes.

Ms. Riley - Cross

75

1 Q And I think on Friday, you called it "Nokia's  
2 demise?"

3 A I agree with that. I haven't read the  
4 transcript, but that would --

5 Q All right.

6 A -- probably be what I said.

7 Q Now, you heard Mr. Dellinger testify that it was  
8 Comcast that approached Nokia about buying patents,  
9 right?

10 A Yes.

11 Q It wasn't Nokia that approached Comcast?

12 A Right. I think Mr. Dellinger said that he knew  
13 someone at Nokia and wanted to see what they had.

14 Q And he -- Mr. Dellinger testified that from the  
15 time they approached Nokia to the time they actually  
16 bought the 870 patent it was about two years?

17 A I think that's right.

18 Q All right. I mean that's hardly a fire sale if  
19 it takes two years to buy the patent, is it?

20 A Well, these things take time. Deals take time.

21 Q Now, you were talking about how Nokia's operating  
22 profits were not good in 2010. Isn't it true that  
23 Nokia had \$2.5 billion of operating profits in 2010?

24 A The number I've seen is actually 2.1 billion Euro  
25 in 2010, so I don't know -- just the conversation, I

Ms. Riley - Cross

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1 want to make sure we're correct, which was half of  
2 what it had earned in 2005. And also, looking at  
3 2011, '12, and '13, Nokia lost money.

4 Q Well --

5 A So this happens to be the end of a good run of  
6 Nokia's profitability in 2010. It just so happens  
7 that's the time period we're focused on.

8 Q Well, you say that, but you're aware, right, that  
9 just last year, Nokia bought Alcatel-Lucent for \$16  
10 billion? You're aware of that, right?

11 A Nokia -- the Nokia handset -- well, this is --  
12 Nokia spun off its handset business to Microsoft. Do  
13 you know that? I mean that's what I'm talking about.  
14 So you're talking about the assets remaining in  
15 Nokia, and Nokia is now branding phones. So you'll  
16 see the Nokia brand. If you go phone shopping,  
17 you'll see them in the stores again. Alcatel-Lucent  
18 is manufacturing them.

19 Q All right. But it's still Nokia, right?

20 A It's the name.

21 Q It's the comp -- the original company, right?

22 A No, sir --

23 Q The --

24 A -- which anyone can read that Nokia's handset  
25 business was sold to Microsoft in 2014. Microsoft

Ms. Riley - Cross

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1 attempted to develop the Windows phone with Nokia.

2 They never achieved more than a three percent market  
3 share. And Microsoft sold those assets in 2016.

4 Q So those assets were part of Nokia at one time,  
5 right?

6 A Yes, they were.

7 Q And then Nokia sold those assets, right?

8 A I mean I think that's what we're talking about.  
9 We're talking about what happened to Nokia.

10 Q Right.

11 A This is the tail end of the decline.

12 Q Right, but I mean you have to -- if you're going  
13 to buy something for \$16 billion, you can't be in  
14 such bad shape, can you be?

15 A Are you talking about Microsoft?

16 Q I'm talking about last year, Nokia buying  
17 Alcatel-Lucent for \$16 billion.

18 A But it's -- that's not the operating business  
19 that it sold to Microsoft.

20 Q And you're aware, aren't you, that Nokia filed a  
21 patent litigation against Apple just last -- just  
22 about three months ago?

23 A Yes, I am.

24 Q And they --

25 A I read about that.

Ms. Riley - Cross

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1 Q Right. And they -- so Nokia knows when it's got  
2 good patents to sue for in litigation, right?

3 A Well, I'm not exactly familiar with all the  
4 intricacies of what it's claiming Apple has done, but  
5 I mean we'll see how it turns out.

6 Q All right.

7 A That was an interesting filing.

8 MR. RIOPELLE: Can we call up the patent  
9 purchase agreement? And if we can go to in the  
10 appendix --

11 THE COURT: What's the exhibit number?

12 MR. RIOPELLE: It's PX-8, Your Honor.

13 THE COURT: Thank you.

14 BY MR. RIOPELLE:

15 Q And I think the jury has seen this before. You  
16 agree, right, Ms. Riley, that these are all the  
17 assets that Comcast bought from Nokia in the 2010  
18 purchase?

19 A Is this the exhibit to the purchase agreement?

20 Q It is.

21 A Yeah, I agree.

22 Q And you agree, right, that Nokia first offered to  
23 sell these for \$1.5 million, right?

24 A I'm thinking about Mr. Dellinger's testimony.

25 Yes, that's correct.

Ms. Riley - Cross

79

1 Q And then -- and then Nokia and Comcast eventually  
2 agreed that Nokia would sell them for \$600,000,  
3 right?

4 A That's right.

5 Q All right. So -- and under the hypothetical  
6 negotiation, you will agree, right, that we have to  
7 assume that Sprint would have known that Nokia was  
8 willing to sell the patent to Comcast for \$600,000,  
9 right?

10 A That's a fair question, and I think that we would  
11 have to understand that the parties would be aware of  
12 that willingness, but not in the 2005 time frame --

13 Q Wait.

14 A -- when they conduct the negotiation.

15 Q Well you --

16 A It's just a question of what they knew as of  
17 2005.

18 Q Right, but under -- one of your slides up there  
19 on the hypothetical negotiation talked about perfect  
20 knowledge, right?

21 A It did.

22 Q And you said that Sprint would know that -- if  
23 messaging was going to go way up, right?

24 A Correct.

25 Q So also under the perfect knowledge, Sprint would

Ms. Riley - Cross

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1 know that Nokia would sell the patent to Comcast for  
2 \$600,000, right?

3 A Yeah, I think the question is whether that would  
4 then be the determining factor in trying to measure  
5 damages adequate to compensate Comcast or Sprint's  
6 use of the invention.

7 Q So --

8 A Like whether that would override all the other  
9 factors regarding profitability and revenue and  
10 messaging volume that I discussed.

11 Q But under your theory of the case, Nokia would  
12 sell the patent in the real world to Comcast for  
13 \$600,000, but Nokia and Sprint would have agreed that  
14 Sprint could license it for \$153 million, right?

15 A Right, as compensation for the trillions of  
16 messages.

17 MR. RIOPELLE: And if we could put up slide  
18 seven from Ms. Riley's deck?

19 BY MR. RIOPELLE:

20 Q And so this was -- this came from your deck that  
21 you showed on Friday, correct?

22 A Correct.

23 Q So if we're looking at that, is that a house  
24 there on that --

25 A I'm thinking of it as an -- like an office



Ms. Riley - Cross

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1 building.

2 Q An office building? Okay.

3 A Because we have a lease.

4 Q So it's your opinion that Nokia would have sold  
5 this office building to Comcast for \$600,000, but  
6 Nokia would have licensed like one of the offices in  
7 there, leased it, to Sprint for \$153 million? That's  
8 your opinion, right?

9 A Well, I mean I think it's you -- the flaw in your  
10 argument is that if someone buys an office building  
11 for \$1 million, can they collect no more than \$1  
12 million in rent on the building? I mean that's  
13 actually the premise of your question, and we know  
14 that's not the case. The patent is an asset, just as  
15 this building is an asset.

16 Q Well, let's flip it around though. Your opinion  
17 is that if Nokia thought it could have licensed the  
18 patent for \$153 million, why would Nokia ever have  
19 sold the patent in the real world for only \$600,000?

20 A But we're not in the real world. We're in the  
21 hypothetical negotiation. It's a negotiation that  
22 never occurred in real life. And it's -- this is how  
23 the law tells us to determine patent damages.

24 Q All right.

25 A I just want to be sure you're clear.

Ms. Riley - Redirect

82

1 Q You agree that Nokia sold the patent in the real  
2 world for \$600,000, right?

3 A Yeah, I don't think anybody is disputing that.

4 Q All right.

5 MR. RIOPELLE: No further questions, Your  
6 Honor.

7 THE COURT: You may proceed with redirect.  
8 Well, it's 11:15, so let's take a recess first and  
9 then proceed with redirect. Ten minutes, ladies and  
10 gentlemen.

11 (Jury out, 11:14 a.m.)

12 THE COURT: We're in recess for ten  
13 minutes.

14 (Recess taken from 11:15 a.m. to 11:32  
15 a.m.)

16 THE COURT: Be seated, everyone. You may  
17 continue, Mr. Heist.

18 MR. HEIST: Thank you, Your Honor. Mr.  
19 (indiscernible), may we please have slide 40?

20 (Pause in proceedings.)

21 REDIRECT EXAMINATION

22 BY MR. HEIST:

23 Q Ms. Riley, you were asked some questions on  
24 cross-examination by Mr. Riopelle about which costs  
25 were included and were not included in your

Ms. Riley - Redirect

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1 determination of the messaging profitability,  
2 correct?

3 A Correct.

4 Q And you said that -- if I understood you, that  
5 when you calculated this 53.8 percent messaging  
6 profitability that that didn't include costs for  
7 spectrum, bay stations, towers, and mobile switching  
8 centers? Did I get that right?

9 A I think that's right.

10 MR. HEIST: Could we turn to the next  
11 slide, 41? Back one, please?

12 BY MR. HEIST:

13 Q From that messaging profit you subtracted the  
14 normal profit, a part shown in yellow on the slide,  
15 correct?

16 A That's correct.

17 Q And the normal profit was 23 percent?

18 A Correct.

19 Q And that profit was taken from the books and  
20 records kept in the ordinary course of business from  
21 Sprint, correct?

22 A Yes.

23 THE COURT: Except that she's your witness  
24 and not on cross-examination, so those questions are  
25 improper. Ask non-leading questions.

Ms. Riley - Redirect

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1 MR. HEIST: Thank you, Your Honor. Will  
2 do.

3 BY MR. HEIST:

4 Q What costs were included in Sprint's books and  
5 records in the normal profit?

6 A There is -- there are costs of providing the  
7 service to CDMA subscribers, including acquisition --  
8 customer acquisition costs, operating costs, handset  
9 subsidies to -- where you're given a break on your  
10 phone so that you enter in to a contract, selling,  
11 general, and administrative costs. Those are all  
12 included in Sprint's profit and loss statement for  
13 the CDMA subscribers.

14 Q Would those statements include costs for  
15 spectrum?

16 A As Sprint -- yeah, as Sprint captures those costs  
17 in its ordinary course of business, yes.

18 Q And would they include costs for bay stations and  
19 cell towers?

20 A Yeah, it would be all the costs of providing the  
21 CDMA -- the services to CDMA customers.

22 Q So to that extent, did you exclude -- did you  
23 include those costs in the normal profit?

24 A They're included in the normal profit right.

25 Q And the royalty rate that you were calculating

Ms. Riley - Redirect

85

1 here was a portion of what you've shown on this slide  
2 as an excess profit.

3 THE COURT: Objection is sustained.

4 MR. RIOPELLE: Thank you, Your Honor.

5 MR. HEIST: Sorry, Your Honor.

6 BY MR. HEIST:

7 Q The -- what portion of this dollar bill did the  
8 royalty percentage come from?

9 A The green portion. It comes from the excess  
10 profit, which is what Sprint earns on messaging over  
11 and above its normal profit on all services provided  
12 to CDMA customers.

13 Q Now, you were asked some questions about the  
14 excess profit of 30.8 percent, and you mentioned --  
15 you made a reference to a Morgan Stanley report.  
16 Where is that that you say that?

17 A That was in a 2008 study that the Federal  
18 Communications Commission undertook looking at  
19 profitability experienced by the carriers on  
20 messaging, was one aspect of the report. So in that  
21 report, a Morgan Stanley study was referenced saying  
22 that the carriers are experiencing 90 percent profit  
23 on messaging.

24 Q Which is higher than what you computed?

25 A Oh, yes.

Ms. Riley - Redirect

86

1 Q You were also asked some questions about Sprint's  
2 various lump sum agreements that Sprint had entered  
3 into, patent agreements, correct?

4 A Yes, that's right.

5 Q Are you aware of any running royalties that  
6 Sprint has sought?

7 A Yes, there was a litigation matter a number of  
8 years ago where Sprint had sued Vonage, which was  
9 probably the first voice over IP provider. And  
10 Sprint sought -- well, was awarded a five percent  
11 running royalty against Vonage in that matter. So  
12 I'm aware of that.

13 Q All right. Let's look at slide six, please. We  
14 looked at this slide on Friday and this is from the  
15 Court's instructions that you talked about, correct?

16 A That's my understanding, yes.

17 Q And what does the law tell us about how the  
18 reasonable royalty is to be determined on this slide?

19 A Well, you can just read from the slide that,  
20 "Comcast is entitled to recover no less than a  
21 reasonable royalty for each infringing act."

22 Q For each infringing act?

23 A Yes.

24 Q And in your analysis, how many infringing acts  
25 were there?

Ms. Riley - Redirect

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1 A Over 2.6 trillion.

2 MR. HEIST: Can we see slide eight, please?

3 (Pause in proceedings.)

4 BY MR. HEIST:

5 Q And what does this slide tell us about what a --

6 A This --

7 Q -- "reasonably royalty" is defined as?

8 A This is from the jury instructions defining a  
9 "reasonable royalty" as the amount of money Nokia and  
10 Sprint would have agreed upon as a fee for use of the  
11 invention at the time prior to when infringement  
12 began.

13 MR. HEIST: And can we -- can we see slide  
14 nine, please?

15 BY MR. HEIST:

16 Q And what does that slide tell us about how a  
17 reasonable royalty is determined?

18 A This tells us that the reasonable royalty is  
19 determined by conducting the hypothetical negotiation  
20 that I described.

21 Q So at the hypothetical negotiation as you  
22 considered it, Nokia and Sprint would be the two  
23 parties?

24 A That's correct.

25 Q And at that hypothetical negotiation, would the

Ms. Riley - Redirect

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1 parties take into account Sprint's use of the  
2 invention?

3 THE COURT: Sustained.

4 THE WITNESS: Yes.

5 THE COURT: You've got to stop leading the  
6 witness. And I'm sustaining objections because Mr.  
7 Riopelle is on his feet.

8 (Pause in proceedings.)

9 BY MR. HEIST:

10 Q You were asked some questions about whether Nokia  
11 would consider the fact that some years later there  
12 would be a sale of the patent to Comcast, correct?

13 A Yes.

14 Q At that hypothetical negotiation, what would have  
15 been known about Comcast's use of the invention?

16 A Well, the parties would have known that Comcast  
17 was not going to use the invention, that Comcast was  
18 acquiring the patent for defensive purposes.

19 Q And so at a hypothetical negotiation what would  
20 the parties have known about Sprint's use of the  
21 invention?

22 A The parties would have known about Sprint's  
23 extensive use of the invention as shown in the  
24 records indicating how many messages they sent and  
25 received.



Ms. Riley - Recross

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1 Q And so based upon your analysis of the facts  
2 surrounding the hypothetical negotiation back in 2005  
3 between Nokia and Sprint, what is your opinion  
4 regarding the correct measure of damages in this  
5 case?

6 A The correct measure of damages is a running  
7 royalty that would represent damages adequate to  
8 compensate Comcast for Sprint's infringement  
9 calculated using the excess profit methodology that I  
10 described to you determined -- resulting in the  
11 determination of a 2.75 percent royalty multiplied by  
12 the apportioned messaging revenue, which yields that  
13 \$153 million number.

14 Q Thank you.

15 MR. HEIST: No further questions.

16 (Pause in proceedings.)

17 RECROSS-EXAMINATION

18 BY MR. RIOPELLE:

19 Q Ms. Riley, you were talking about a report from  
20 Morgan Stanley?

21 A Well, a Federal Communications Commission study  
22 that references a Morgan Stanley report.

23 Q Right. And you haven't submitted that report  
24 here for evidence, have you?

25 A What do you mean?

Ms. Riley - Recross

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1 Q You haven't given that report to this jury for  
2 them to consider, have you?

3 A Not personally. Like --

4 Q This jury --

5 A -- I haven't handed them anything.

6 Q This jury does not have that report, do they?

7 A I don't know.

8 Q Okay. And that report was done back in 2008,  
9 wasn't it?

10 A Yes, it was.

11 Q And it was done before all the bundling plans  
12 came in, wasn't it?

13 A Some might say it led to the creation of bundling  
14 plans, yes.

15 Q And that -- you were talking -- you were talking  
16 earlier about well, you have to look at the  
17 hypothetical negotiation. That Morgan Stanley report  
18 wasn't looking at a hypothetical negotiation, was it?

19 A No, it wasn't.

20 Q And that Morgan Stanley report wasn't looking at  
21 how much Sprint would have agreed to with Nokia to  
22 pay in 2005, was it?

23 A No, it was just looking at profitability of  
24 messaging as experienced by the carriers, of which  
25 Sprint is one.

1 Q Now, you just brought up the Vonage verdict,  
2 right?

3 A Correct.

4 Q And you said that you think that was a running  
5 royalty, right?

6 A Yes.

7 Q Now, but you base that on a newspaper article you  
8 read, right?

9 A That's probably true.

10 Q Right? And --

11 A I mean I've read the opinion, but in my report I  
12 might have cited to an article.

13 Q Right. You cited to a newspaper article in your  
14 report, right?

15 A Okay.

16 Q And don't you think it would be better researched  
17 if you actually went to the court and looked at the  
18 final judgment in the case?

19 A Well, I had previously developed a database of  
20 royalty rates. That is one I had the occasion to  
21 read the opinion relating to, and it is -- I have  
22 read that opinion.

23 Q Really? So don't you know that if you looked at  
24 the final judgment in that case, it was not a running  
25 royalty; it was, in fact, a lump sum that was

1 entered?

2 A Based on agreement of the parties, yes.

3 Q No. No, not based on -- I agree that there was a  
4 settlement, but the judgment entered by the court was  
5 a lump sum, wasn't it? It was not a running royalty?

6 A And I agree with you that in settlement of  
7 litigation, parties pay lump sums. That's what --  
8 it's true.

9 Q You're --

10 A You said it yourself, in settlement of the  
11 litigation, they agreed to pay one lump sum. That  
12 doesn't change the fact that Sprint sought a running  
13 royalty in that trial and achieved a running royalty  
14 in the verdict. They ultimately did settle for a  
15 lump sum.

16 Q Are you finished?

17 A I'm finished.

18 Q I believe you're intentionally misconstruing my  
19 question. The trial judgment entered by the court  
20 before the parties ever reached any settlement was a  
21 lump sum, isn't that right? It was not a running  
22 royalty?

23 A I think I can agree with that --

24 Q Thank you.

25 A -- with the parties settle -- with the knowledge

Mr. Webber - Direct

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1 they were going to settle.

2 Q The judgment was entered by the court, not -- and  
3 the court had no knowledge at that point that the  
4 parties were going to settle, did they?

5 A I don't think so.

6 MR. RIOPELLE: No more questions, Your  
7 Honor. Thank you.

8 MR. HEIST: Nothing further, Your Honor.

9 THE COURT: That concludes your testimony.  
10 Thank you.

11 THE WITNESS: Thank you.

12 (Witness excused.)

13 MS. MELLEY: Comcast calls James Webber.

14 (James Webber, Plaintiff's Witness, Sworn.)

15 COURTROOM DEPUTY: Please be seated.

16 Please state your full name and spell it for the  
17 record.

18 THE WITNESS: Yes, my name is -- excuse me,  
19 my name is James Webber, that's W-E-B-B-E-R.

20 THE COURT: Good morning. Good morning,  
21 sir.

22 THE WITNESS: Good morning, Your Honor.

23 THE COURT: You may proceed.

24 DIRECT EXAMINATION

25 BY MS. MELLEY:

Mr. Webber - Direct

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1 Q Good morning. I think we've just snuck in a good  
2 morning. Would you introduce yourself to the jury,  
3 please?

4 A Yes, my name is James Webber, as I've previously  
5 stated. I'm an economist and I'm here to talk about  
6 some cost issues today on behalf of Comcast.

7 Q Mr. Webber, have you worked on a presentation  
8 that will help illustrate your testimony for the  
9 jury?

10 A Well, that was my intention, yes.

11 Q All right. Let's bring up the first page of  
12 that.

13 (Pause in proceedings.)

14 Q While we're doing that, can you tell the jury by  
15 whom you're employed present?

16 A Yes, I'm a Senior Vice President and a Partner at  
17 QSI Consulting.

18 Q And what's the business of QSI?

19 A We provide financial, economic, technical, and  
20 strategic advice to clients both in public and  
21 private sector. So one of my clients, for example,  
22 in the public sector would be the United States  
23 General Services Administration. And then on the  
24 private side we work with telephone companies,  
25 electric and gas companies, cable companies, and

Mr. Webber - Direct

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1 people that are in sort of network industries.

2 Q What's a network industry?

3 A Well, I view telecommunications as a network  
4 industry. There are lots of various components of  
5 networks that connect to one another within a single  
6 company's network. And then also, those networks are  
7 connected into other networks with other people.

8 Q How long have you been at QSI?

9 A I've been at QSI since 2003, so that's about 13,  
10 almost 14, years now.

11 Q Okay. And what do you do there?

12 A My fruitions are really two-fold. First of all,  
13 I manage a lot of our client relationships. So I'm  
14 one of the individuals who will scope projects with  
15 our clients to determine what the clients' needs are,  
16 and the inside the firm I'll help to determine which  
17 of the assets and consultants that we have are best  
18 used to meet the clients needs. And then once we've  
19 made those determinations I typically manage the  
20 projects until they're completion. Another function  
21 I have, ultimately, is I assist my partners as  
22 they're managing their projects. They may call on my  
23 expertise where they need something from me.

24 Q Would you tell us about your educational  
25 background?

Mr. Webber - Direct

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1 A Certainly. I have a Bachelor's Degree in  
2 Economics from Illinois State University. I earned  
3 that in 1990. And then three years later, I acquired  
4 a Master's Degree in Economics, also from Illinois  
5 State University.

6 Q After receiving your master's degree, did you  
7 then enter the workforce?

8 A I did. At that point I had been a intern at the  
9 Illinois Department of Natural Resources, and as soon  
10 as I completed my degree they offered me a full-time  
11 job. And in that capacity I basically did benefit  
12 cost analysis as it related to environmental or  
13 pollution control type strategies, and then also in  
14 the electric and gas area.

15 Q And what did you do next?

16 A From there, I moved to the Illinois Commerce  
17 Commission which has responsibility over  
18 telecommunications carriers, electric companies, and  
19 gas companies. I worked in the rates organization  
20 analyzing (indiscernible) filings made by the  
21 telephone companies that basically set their prices  
22 for the services they offer. And my job was at first  
23 to review those filings and advise the Commission as  
24 to whether the prices were consistent with the cost  
25 information that the carriers were provided, and then



Mr. Webber - Direct

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1 I ultimately managed that group.

2 Now, while I was doing that work, the types  
3 of costs that we looked at are much like what we'll  
4 be talking about here today, and it breaks down  
5 relatively simply. We've got labor, whether it's  
6 internal or external to a company; we've got capital,  
7 so that's sort of like equipment; and then often  
8 times, particularly in our industry, in the  
9 communications industry, there are external vendors  
10 who help carriers do their job, and those are treated  
11 in a separate category of costs.

12 Q Okay. Before we get into the weeds of all we did  
13 today, let's carry on. Did you move on from the  
14 Illinois Commerce Commission?

15 A I did. After the Illinois Commerce Commission, I  
16 went to a small consulting firm in Chicago. It's  
17 name was CSG. And I represented clients there mostly  
18 in the telecommunications industry, but then also in  
19 the financial services industry, and related to the  
20 costs and pricing of telecommunications services.

21 Q Okay. And then?

22 A From there, I went to work inhouse at one of my  
23 larger clients. That was AT&T. I first worked in  
24 their regulatory group, and my function there was to  
25 look at the cost of providing services and to work at

Mr. Webber - Direct

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1 the state level to make sure that the services we  
2 bought from other carriers and that pricing in those  
3 states was set based on cost standards pursuant to  
4 the state's rules.

5 Q Okay. And after that?

6 A Oh, yes, I had a second job within AT&T. Thank  
7 you. I moved outside of that regulatory organization  
8 and I went to an internal organization. And then I  
9 was given a team of individuals. We had  
10 responsibility over negotiating the rates, terms, and  
11 conditions regarding services that we purchased from  
12 all the other telecommunications carriers in the  
13 industry. And then when we couldn't work out our  
14 deals, ultimately, sometimes we had to go work in  
15 arbitration to get those issues resolved.

16 Q Okay. Did you move on from AT&T?

17 A I did. After that, I went to a company by the  
18 name of CoreComm, which then bought a company by the  
19 name of ATX. So CoreComm was a midwest company. ATX  
20 was a company here. In fact, their headquarters was  
21 in Bala Cynwyd, so perhaps some of you know that  
22 name. I had a carrier relations function there, so I  
23 helped negotiate the interconnection of our telephone  
24 company with other companies. Then I also had  
25 regulatory affairs functions and I worked with the

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1 finance group in order to do benefit analysis and  
2 cost analysis to help us determine how we would buy  
3 the services that we bought from other carriers and  
4 produce our products profitably.

5 Q Okay. Does that bring us up to your work at QSI?

6 A It does. Thank you.

7 Q All right. During this time have you previously  
8 served as an expert in court or other tribunals?

9 A Yes, beginning in about 1994 where I first  
10 testified before the Illinois Commerce Commission,  
11 I've testified in 25 states, whether in state court  
12 or federal court, I've testified at the Federal  
13 Communications Commission, and I've testified before  
14 state regulatory agencies throughout the midwest and  
15 a good bit of the east and the southwest in the  
16 southern part of the country. I've also testified in  
17 arbitration proceedings. And if I didn't mention  
18 state and federal court, I've done that as well.

19 Q Okay. And what has been the focus of your  
20 testimony or your reports in those instances?

21 A My focus really has been two-fold: first, on  
22 rates and costs, and then secondarily, the  
23 interconnection, if you will, of companies and how  
24 they purchase assets from one another and how all  
25 that stuff fits together.

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1 Q Okay. So all told, how long have you worked in  
2 or been involved with the telecommunications sector?

3 A This is tough to admit, but I guess its 23, going  
4 on 24 years now.

5 Q And how much of that work has involved pricing or  
6 cost analyses?

7 A I would say at least half.

8 Q Okay.

9 MS. MELLEY: Your Honor, I offer Mr. Webber  
10 as an expert in costs and pricing analyses in the  
11 communications industry.

12 MR. RIOPELLE: I missed that. What's  
13 the -- specifically are you offering for?

14 MS. MELLEY: Costs and pricing analyses in  
15 the communications industry.

16 MR. RIOPELLE: No objection, Your Honor.

17 THE COURT: Fine. We will receive Mr.  
18 Webber's testimony on costs and pricing analyses in  
19 the communications industry. You may proceed.

20 MS. MELLEY: Thank you.

21 BY MS. MELLEY:

22 Q When were you first engaged in this matter?

23 A November of 2014, so nearly two and a half years  
24 ago.

25 Q And were you asked to do a cost analysis?

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1 A Yes.

2 Q Okay. Is you or your firm being compensated for  
3 your work in connection with this case?

4 A Oh, yes, we are.

5 Q And is your or QSI's compensation affected in any  
6 way by the outcome of this case?

7 A No.

8 Q So what's the purpose of your testimony today?

9 A So, ultimately, you heard Ms. Riley testify on  
10 Friday and then also this morning that she does an  
11 analysis which relies in part upon some cost figures  
12 that I've provided. And so you'll see here on this  
13 table, ultimately, I provide the cost of \$1.112  
14 billion. And I'll read this for the record,  
15 \$759,959,674 of those dollars relate to SMS services,  
16 and \$352,035,006 of those dollars relate to MMS  
17 services. So if you recall, the total calculation  
18 that Ms. Riley had identified, the \$153 million  
19 figure, the blue side, SMS, goes to about \$149  
20 million, and the green side goes to that remaining \$4  
21 or \$5 million.

22 Q Okay. So you were in the courtroom when Ms.  
23 Riley testified?

24 A I was.

25 Q Okay. And just to make sure the jury

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1 understands, can you explain how your number fit into  
2 the work that she did?

3 A Yeah, so Ms. Riley testified, as I understand it,  
4 that she created a profit pool from which she  
5 calculated rev -- royalties, and that profit pool  
6 determines -- is determined based on revenues less  
7 costs. And so my cost figure is in a portion of the  
8 total costs that she has for her calculations. She  
9 also had added other costs on top of the ones that I  
10 calculated.

11 Q Okay. And over what period of time did you  
12 calculate costs?

13 A So my analysis, as I show here, is from 2006  
14 through 2014, and particularly in 2006, it starts in  
15 February, which I understand to be the beginning of  
16 the damages period.

17 Q Now, looking at the slide I see the phrase  
18 "incremental costs." Can you explain that phrase to  
19 the jury?

20 A Certainly. So anybody who's studied economics  
21 knows there's a really long answer and a short  
22 answer, so I'll try to give you the short answer  
23 here. An incremental cost is the additional cost  
24 given everything else that's already happened that is  
25 incurred as a result of a business making a

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1 particular decision and then taking action. So in  
2 this case incremental costs that I'll be talking  
3 about are either costs which are incremental to SMS  
4 or MMS or both.

5 Q Is there another way of thinking about the  
6 concept of incremental costs?

7 A Yes, in fact, I like to think about it this way.  
8 It's actually a little bit more simple. You just  
9 think about avoided costs. Economists say that the  
10 best way to determine what the incremental cost is is  
11 to determine the cost that a company or a person  
12 would avoid had it not taken the action that we're  
13 considering or had it not done the business or the  
14 sales that we're considering. So in this case the  
15 avoided cost, also the incremental cost, would be the  
16 cost related to SMS if Sprint lived in a universe  
17 where it did not offer SMS, and likewise for MMS.

18 Q Okay. And now the balance of your testimony is  
19 going to be taking the jury through how you  
20 calculated these numbers?

21 A That's true.

22 Q All right, let's dive in. Let's look at SMS  
23 costs in an additional level of detail. Can you tell  
24 the jury what's represented by this slide?

25 A I'm trying to figure out how to erase that. I'm

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1     sorry.

2     Q     That's the problem with putting red on the  
3     slides. I can do it.

4     A     Oh, I got it. I'm sorry about that. Okay. So  
5     in this slide here, what I'm trying to show in this  
6     slide number five is the information that I was given  
7     right off the bat, sort of when I got involved in  
8     this litigation. Sprint had certain Microsoft Excel  
9     workbooks that included references to scorecards and  
10    margin and profitability analyses. And so the  
11    portions of those documents that relate to SMS are  
12    sort of represented here. Sprint had identified  
13    costs here in two categories: vendor costs and then  
14    customer care costs. And in total, they had  
15    identified, again, for the record \$200,822,929 as it  
16    relates to SMS.

17    Q     Looking across the bottom axis there I see  
18    additional categories of costs. Can you tell the  
19    jury -- I guess can you walk the jury through the  
20    buckets of costs that you've calculated just very  
21    briefly so they have an understanding of how you  
22    thought about this?

23    A     Sure. So it's typical in our industry that labor  
24    and capital are going to be large contributing costs.  
25    And so customer care is a sub-segment of labor. It's



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1 a special category that is tracked in our industry  
2 separately. What I had noticed is that there was no  
3 labor cost in the analyses that Sprint had provided,  
4 so I had to add those in. Similarly, there weren't a  
5 lot of capital costs that had been identified by  
6 Sprint, so I had to add those into the analysis. And  
7 we'll talk about that in more detail later. And then  
8 I also captured vendor costs, which Sprint was  
9 monitoring very closely.

10 Q How did you determine the categories of costs to  
11 include?

12 A Well, I mean first of all, you know, my  
13 experience in this industry, I know that I should be  
14 looking for labor, I should be looking for equipment,  
15 particularly, I should be looking for customer care  
16 costs. That's like when you call in and talk to a  
17 representative about a problem or a billing question.  
18 These are standard in our industry, and, you know, I  
19 knew I had to go look for those costs. And I used  
20 what Sprint had provided and then also I was able to  
21 find through other documents they had more costs, and  
22 we'll talk about those.

23 Q Okay. So that's why there are bars on this graph  
24 for two of the categories and not for the other two  
25 categories?

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1 A That's correct, thank you.

2 Q Now, did you identify any additional costs in any  
3 of the categories reflected on this chart?

4 A I did, yes.

5 Q Okay. Let's take a look at the next slide. Can  
6 you tell us first the amount of additional costs --

7 A Sure.

8 Q -- that you captured for SMS?

9 A So if you look at the right-hand side where it  
10 says "Total," you'll see the total is now  
11 \$759,959,674. That's because I've added in total  
12 \$559,136,745 to the figures that Sprint had given me  
13 in its scorecard or profit worksheets, the \$200  
14 million figure below.

15 Q Okay. Can you point the jury to the key on this  
16 chart where you distinguish your costs from the --  
17 the additional costs you calculated from the costs  
18 that had been identified initially?

19 A Yes, certainly. So the numbers that Sprint had  
20 provided, that Sprint identified, are here, and mine  
21 are in dark -- or theirs are in dark blue at the  
22 bottom. There's none here, there's none here. And  
23 then mine are light blue on top.

24 Q Thank you. And shortly, we'll get to how you  
25 calculated each of these buckets of costs?

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1 A That's right.

2 Q All right. But before we do that, did you do a  
3 similar analysis and overview for MMS?

4 A I did. And as we talk about what I've done here,  
5 I mean it's basically the same thing for SMS and MMS.  
6 So, hopefully, in the interest of time, we'll be able  
7 to talk about SMS and then just transfer that  
8 information over to MMS.

9 Q Before we do that, can you explain to the jury  
10 any differences with respect to MMS and your  
11 categories of costs?

12 A Yes. I'm not sure if you can see it on your  
13 screen, so I'll circle it here. There's a category  
14 called "network costs." This category was identified  
15 by Sprint -- and we'll talk about it in a little bit  
16 more detail -- for a short period of time. And so  
17 that's the -- a difference between what we had for  
18 SMS and MMS. There were no network costs identified  
19 for SMS.

20 Q Did you identify additional costs beyond those  
21 reflected on this slide for MMS?

22 A I did. Just like with respect to SMS, the  
23 lighter green here, you'll see I've added costs and  
24 vendor, customer care, capital and data center,  
25 Sprint labor and network. I've added a total of

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1 \$179,941,296, which brings that total up to the  
2 figure we saw on the first slide, \$352,035,006.

3 Q Now, what sorts of information did you rely on in  
4 computing costs?

5 A So the first category was the scorecard  
6 documents, the PX-703 and 745. So Sprint had already  
7 done a lot of math and provided us really good  
8 documents. And so I started with that. Then I  
9 looked at vendor contract information, which gave me  
10 a lot of information about the costs related to  
11 capital purchases and investments that it had to make  
12 in order to support messaging, SS and MMS  
13 respectively. I looked at messaging data detail,  
14 which is volume by year. It had customer care calls  
15 by year and some other details that were valuable and  
16 useful for me. I looked at the profit and loss  
17 information regarding CDMA. You'll see that here.

18 Then, of course, I looked at a lot of  
19 documents that were available in the record here in  
20 this case. I looked at deposition testimony of  
21 several individuals. I read the transcripts, I  
22 attended some of the depositions. I looked at the  
23 exhibits that were offered up during those  
24 depositions. So these are day-long question and  
25 answer sessions where everybody sits across the table

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1 and we share a lot of documents. And so I sat  
2 through many of those and looked at the documents  
3 that were provided there. Then, of course, I looked  
4 at public information.

5 Q All right. You've -- on this slide there are a  
6 lot of PX numbers, and I want to quickly go through  
7 them and let you read into the record some of the  
8 sources that you relied upon. But before we do that,  
9 does --

10 A Sure.

11 Q -- this capture every document that you relied  
12 upon?

13 A No. No. I mean, ultimately, there were  
14 thousands of documents. I've read thousands of pages  
15 of information. This is just to give you a highlight  
16 of categories that I looked at in kind of an  
17 understandable way. And then these documents here  
18 are items that I refer to quite frequently in my  
19 written reports and that we may discuss today.

20 Q Okay. So let's, if you would, please, just read  
21 in the messaging data, documents that you relied  
22 on --

23 A Sure.

24 Q -- as reflected in this slide.

25 A So these are all PX numbers. PX-601, PX-602,

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1 PX-707, PX-708, PX-710, PX-711, PX-712, PX-714,  
2 PX-715, PX-716, PX-718, PX-719, PX-720, PX-722,  
3 PX-723, PX-724, PX-726, PX-727, PX-728, PX-730,  
4 PX-731, PX-732, PX-734, PX-735, PX-736, PX-738,  
5 PX-739, PX-740, PX-742. Previously, I mentioned  
6 PX-703 and PX-745. We also have PX-743 and then all  
7 the deposition transcripts and exhibits.

8 MS. MELLEY: Okay. Your Honor, there are a  
9 handful here that have not yet been moved into  
10 evidence, and so I would like to do that. I'll read  
11 them. PX-708, 712, 716, 720, 724, 728, 732, 736, and  
12 740. I don't believe there's an objection to any of  
13 these.

14 MR. RIOPELLE: I don't know at this point.  
15 I didn't know you were going to ask, so we'll have to  
16 come back to it at some point.

17 THE COURT: Well, I'll receive them in  
18 evidence subject to a later argument on why they're  
19 not admissible.

20 (Plaintiff's Exhibits, 708, 712, 716, 720,  
21 724, 728, 732, 736 and 740, documents, are admitted  
22 into evidence.)

23 MR. RIOPELLE: Thank you, Your Honor.

24 BY MS. MELLEY:

25 Q All right. With that administrative item out of

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1 the way, could you just briefly, very briefly, for  
2 the jury explain what sort of public data you were  
3 referring to when you mentioned public data?

4 A Certainly. So as is the case whenever I look at  
5 a case like this or a launch a new study for my  
6 clients, I'll look at public documents related to the  
7 issue that I'm looking at. So I looked at some  
8 information regarding SMS and MMS. But then I think  
9 critically here, I looked at information as it  
10 relates to labor pricing and other government  
11 statistics that I could use in order to help bolster  
12 the cost analyses that I had to do. So where I don't  
13 have all the pieces of information that I need based  
14 on the papers that I have from Sprint, I went to  
15 public sources to obtain that data. The Bureau of  
16 Labor Statistics would be one of those organizations  
17 that I went to.

18 Q Great. And with that, let's dive in to a deeper  
19 level of detail.

20 A Sure.

21 Q Turning first -- thinking back to the bar graph,  
22 can you tell us what's the first bucket of costs that  
23 we'll talk about?

24 A Sure, so this is Sprint's SMS incremental costs  
25 as it relates to vendors. And what you'll see here

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1 in that top row, that darker blue row, that's the  
2 information that Sprint had provided. And these  
3 vendor costs here relate to what I'll refer to the --  
4 is the alphabet soup that Dr. Akl talked about. We  
5 have the SMSC, which is the messaging center for SMS;  
6 we have the MMSC, which is the messaging center for  
7 MMS; we had something called the PSS -- or I'm sorry,  
8 HSP; we had the HLR; he had LDAP; PDR; and a few  
9 other things. So these are vendors costs that relate  
10 to many of those things.

11 Sprint had identified many of those costs  
12 on an operating-type basis year over year. And the  
13 bottom row, I did a deeper dive and I found some more  
14 of those costs and spread them over time and have  
15 captured them here.

16 Q Okay. Could you give the jury the 50,000 foot  
17 level analysis of how you captured the additional  
18 costs?

19 A Sure. And, actually, let me -- let me back up.  
20 So in addition to capturing some additional costs, I  
21 did make a couple of mathematical corrections to  
22 Sprint's spreadsheets. Now, these aren't major  
23 changes. It didn't really change the numbers all  
24 that much. I just want to be clear that I did make a  
25 couple of changes. And, basically, there was one



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1 circumstance where there was some volume information  
2 that had not been transferred over in the electronic  
3 version of their workbooks, and so I fixed that  
4 error. And then there was some pricing information  
5 that wasn't translated properly, and I just fixed  
6 that based on the papers that I had. So it wasn't  
7 like a new analysis that I created into their work.

8 As to the additional categories, I did two  
9 things really. First of all, I found Sprint papers  
10 that had identified some vendor cost categories of  
11 items that were not captured in their original work.  
12 One of those relates to the SPS. One of them relates  
13 to the HLR. These vendor documents identified that  
14 the cost exists, that they hadn't been captured here,  
15 so I put them into the studies in the appropriate  
16 years based on when they were incurred.

17 All right. And then second, you'll see  
18 Sprint had not provided -- in the information it  
19 provided here in 2010 through 2014, it had not  
20 provided anything in this period. So I used a simple  
21 technique called backcasting. Based on the  
22 information that I had from 2010, I took the numbers,  
23 divided them by the number of messages to come up  
24 with the number per unit, and then I multiplied that  
25 by the number of units back in time, 2009, 2008,

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1 2007, and 2006. This type of work is pretty typical.  
2 If you don't have all the relevant information, it's  
3 one of your next best alternatives. So I've employed  
4 that backcasting here.

5 Q And, very briefly, how do you do the backcasting?

6 A So, essentially, in this case what I was able to  
7 do was take the per unit cost figures based on these  
8 data in 2010. So I took the dollars, divided them by  
9 the number of messages, came up with the cost per  
10 message. And then I was able to obtain the message  
11 counts for all of the previous years. So I simply  
12 multiplied messages times dollars per message,  
13 simply.

14 Q And can you summarize for the jury the total  
15 costs Sprint identified and the additional that you  
16 calculated in the context of vendor costs for SMS?

17 A Yeah. So for vendor costs, I added \$89,134,541.  
18 So that's about 50 percent on top of what Sprint had  
19 already calculated. And so the new total is now  
20 \$260,001,493. Again, so I added about 50 percent of  
21 what Sprint had calculated and put that on top of  
22 what they had calculated.

23 Q And did you do a similar analysis for MMS?

24 A I did.

25 Q And let's take a look at the next slide.

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1 A I'm having a hard time with this. Oh, there we  
2 go. Okay. So, basically, I did the same thing for  
3 MMS as I did for SMS. I had some missing volume data  
4 in 2010, so I put that in the study and fixed it. I  
5 had some missing pricing information in 2013. I put  
6 that into the study just to fix it. There were  
7 additional vendor costs, again, for the HLR and the  
8 SPS. I've added those in. And then I backcasted for  
9 this period here, just like we had talked about  
10 previously for SMS.

11 Q Okay. And so, again, the Sprint identified costs  
12 are in the top row and the additional that you added  
13 are in the lighter color in the second row?

14 A That's right. So I added \$43,740,445, roughly 25  
15 percent, on top of Sprint's numbers.

16 Q Okay. And now I -- we didn't talk about this  
17 with respect to the last slide. Let's pause here and  
18 do it. I see some little bubbles across the bottom  
19 of the screen. Can you explain to the jury why we've  
20 put those there?

21 A Oh, thank you. That's good. So this is a  
22 reminder. Earlier, we looked at some of the general  
23 categories of papers that I looked out in order to  
24 inform my analyses here. You'll see messaging data  
25 on the lower left-hand side. I used messaging data

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1 pulled from other Sprint documents for 2009, 2008,  
2 2007, and 2006 to come up with those quantities that  
3 I then multiplied the dollar per quantity figure by  
4 in order to do my backcasting.

5 The majority of the numbers that were  
6 provided from Sprint and that are reflected in the  
7 dark green came from their scorecard documents.  
8 These are Microsoft Excel spreadsheets that they kept  
9 in the ordinary course of managing their business  
10 where they were tracking their profitability and the  
11 contribution margin that they were providing to the  
12 overall firm's profitability.

13 Vendor contracts obviously inform me  
14 because they show prices and they also have many  
15 purchase orders. Although I didn't have invoices, I  
16 had purchase orders indicating where dollars were to  
17 be spent, and so I used those as a basis for adding  
18 additional costs. And then the profit and loss data  
19 and some of the deposition transcripts also helped  
20 inform my decisions here.

21 Q Okay. Now let's move on to the second bucket of  
22 costs. Customer care, correct?

23 A Customer care.

24 Q All right. Let's pause for a moment, and would  
25 you just tell the jury what you mean by customer care

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1 costs?

2 A Certainly. So in a -- in an industry which is  
3 heavily geared toward customers, as you can imagine,  
4 the customers spend a lot of time taking care of  
5 their customers, whether it's answering telephone  
6 calls, repairing technical issues, dealing with  
7 billing problems, and that sort of thing. It's  
8 typical in the industries that I've studied over the  
9 past 20 years or so that companies track these data  
10 very diligently because they're areas where they  
11 could have a lot of influence on the costs. And so  
12 Sprint had done a nice job of tracking their data  
13 based on the type of call, the severity of the  
14 information that needed to be addressed, et cetera,  
15 and they had different price points based on what was  
16 happening.

17 So those data are reflected in that top  
18 row, which sums to about \$29,955,977. I guess that's  
19 not about; it's exact. And so I was able to use  
20 those figures and data I had tracking back in time  
21 regarding customer care calls and the severity or  
22 level of the care activity that was required, and I  
23 was able to compute those figures for the years  
24 moving backward in time based on their data.

25 Q Okay. And what amount of costs did you identify

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1 in addition to those that were identified by Sprint?

2 A So, for the record, I added \$60,735,585, so I  
3 added basically two times here as to what Sprint had  
4 computed.

5 Q When you add additional costs to the costs  
6 identified by Sprint is that more favorable or less  
7 favorable to Sprint's position on damages in this  
8 case?

9 A Oh, it's more favorable to Sprint because,  
10 ultimately, the margin on which a royalty would be  
11 based becomes small when the costs become higher.

12 Q And going back to customer care costs, did you do  
13 a similar analysis for MMS?

14 A I did.

15 Q And let's take a look at that. And, again, can  
16 you just briefly tell the jury what you did?

17 A Yeah, I did exactly as I described for SMS. And  
18 in this case I added \$40,906,160 to their previous  
19 total, \$22,115,956, so about double their numbers.

20 Q Okay. And on what sorts of documents did you  
21 base your customer care costs analysis?

22 A Again, it was based on the messaging detail that  
23 Sprint had provided in other papers -- when I say  
24 other papers I mean a lot of other papers -- their  
25 scorecard documents, which were the financial

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1 documents that they used to track the profitability  
2 of their messaging services and their costs, and also  
3 some of the profit loss information, their financial  
4 data.

5 Q Was your next bucket of costs labor costs?

6 A It was.

7 Q All right. Let's take a look at that. First,  
8 what did you intend to capture in the bucket of labor  
9 costs?

10 A So I intend to capture -- and you can see it on  
11 the left-hand side. Let's ignore for a minute the  
12 top row which is highlighted in yellow. I intended  
13 to capture two categories of costs. One is  
14 management labor and the other one is non-management  
15 labor, so this would be like technical support staff.  
16 And, you know, I ultimately looked at details that  
17 Sprint had provided, not only in their papers, but in  
18 depositions. And for management, I was able to get  
19 an estimate of headcount by year for a good period of  
20 time. And I went to the Bureau of Labor Statistics  
21 in order to provide information regarding how much  
22 management was paid on an annual basis. In  
23 telecommunications, and management in particular, I  
24 added in benefits to make sure that I was capturing  
25 everything that was related to management labor

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1 costs, and then I was able to spread those over time  
2 based on certain volumetric data that I had from  
3 Sprint.

4 As it relates to labor, here, what we've  
5 got is various categories of technicians, people who  
6 make anywhere say between 15 and, on the higher end,  
7 between \$65-\$70 per hour based on the hours that they  
8 would work.

9 Q Okay. Now, you asked the jury to skip the first  
10 line for the time being, so I want to focus you back  
11 on it. What does the first line of this chart  
12 reflect?

13 A So the first line of this chart reflects that  
14 Sprint had not captured this data in the ordinary  
15 course of its business, and so this wasn't included  
16 in their own incremental costing analysis and margin  
17 analyses when they were looking at messaging  
18 profitability. But I know from doing cost studies  
19 for 20 years, you can't sell your services, you can't  
20 manage your services without labor. And it was  
21 pretty obvious from the documents that there were a  
22 lot of dollars that needed to be captured. And so  
23 I've done that here. And, for the record, I've  
24 captured \$21,634,819 for the management labor. And  
25 then for non-management, I have \$67,372,571, for a



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1 total of \$89,007,390, again, from 2006 through 2014.

2 Q Okay. And then did you allocate those between  
3 SMS and MMS?

4 A I did and I used an allocator, which is just  
5 basically the proportion of messages, SMS and MMS,  
6 per year.

7 (Pause in proceedings.)

8 Q Let's turn to your next bucket of costs. Capital  
9 and data center, correct?

10 A That's correct.

11 Q Okay. What are capital costs?

12 A So that's kind of a fancy economic or financial  
13 word. Here, it's computers and servers and hardware  
14 that were purchased, and then also supporting labor  
15 and supporting cap -- software for all those pieces  
16 of equipment that were put into place in order to  
17 support the messaging business.

18 Q How is the bucket of capital costs different than  
19 the bucket of vendor costs?

20 A So the vendor costs are basically operating  
21 expenses. So these are service fees, if you will,  
22 that are incurred on an annual or monthly basis. And  
23 here, this equipment is purchased one time, it's  
24 installed into the network, and then it's used for  
25 many years. So think if you were to buy a car, what

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1 we do here ultimately is we capture the cost when it  
2 was purchased, but obviously you use it for a long  
3 period of time. And so part of the process that we  
4 go through to put these numbers up on the screen is  
5 identify the initial going in price and then the cost  
6 to manage that asset over time.

7 Q Okay. How did you identify the capital projects?

8 A Well, what I did was look through vendor  
9 contracts and scoping documents that described  
10 projects as they were communicated back and forth  
11 between Sprint and their vendors. And where I was  
12 able to identify dollars that were likely to be spent  
13 and put into the network based on the project plans  
14 of these documents, I recorded that by year and tied  
15 it to the activity where I was able -- it could be  
16 SMS, it could be MMS, or it could be both. I  
17 recorded all that information putting it in by year  
18 and then reflected it over time.

19 Q Okay.

20 A And, again, it's based on the documents that  
21 Sprint had provided. I didn't go out to the public  
22 domain in order to get the capital expenses related  
23 to the company. Rather, I used their data as it was  
24 shared between them and their vendors and then  
25 provided to us in discovery.

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1 Q How many contracts did you look at?

2 A Several hundred. Thousands of pages of paper,  
3 yeah.

4 Q We didn't bring it to pile in front of you.

5 A Thankfully.

6 Q And now, how did you calculate the capital costs  
7 that are reflected in the chart?

8 A So as a simple matter, what we do -- and this is  
9 typical in our industry. If you have a dollar that's  
10 spent on a particular day and the asset is going to  
11 be used for say five years, you multiply that dollar  
12 by a capital cost factor and then you repeat that  
13 process for each of the next five years. And so a  
14 dollar over the course of five years really becomes  
15 more \$1.50 because of the capital cost treatment.  
16 And what's inside of that capital cost factor?  
17 Again, this is standard, fair for what we do in our  
18 industry, but it includes the cost of equity of  
19 Sprint.

20 So Sprint goes to the market and it raises  
21 money in order to buy things, and the investors  
22 expect a return on their investment. Sprint also  
23 goes to the market and borrows money -- this is what  
24 we would call debt financing -- that has a lower  
25 cost, but a cost, nonetheless, that needs to be

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1 captured. When you do that sort of thing there are  
2 some tax consequences that need to be considered, and  
3 the obviously you have the depreciation expense that  
4 reflects the asset's value eroding over time before  
5 it's actually pulled out of the network and replaced  
6 with something else. So these capital cost factors  
7 take all of that into consideration, just like if you  
8 were to buy a car in year one for \$20,000 and have  
9 your payments of \$400 a month for five years, it's  
10 that same concept.

11 Q And beyond those capital costs, what else is  
12 reflected in this chart?

13 A So this is what I would typically refer to as  
14 support assets or support costs. The datacenter  
15 costs that I've captured here reflect the fact that  
16 all of this equipment -- now, remember, we're talking  
17 about the SMSC, the MMSC, LDAP servers, connectivity  
18 to the SS7 environment, all of this is really  
19 technical and expensive hardware, and it has to live  
20 somewhere that is clean, free of static, it's  
21 properly air conditioned, it has fire suppression,  
22 and, most importantly, it has backup power. It has a  
23 conversion from AC to DC power so that the power is  
24 smooth. And that supporting infrastructure is  
25 bigger. In other words, there are incremental

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1 expenses here because all this capital had to be put  
2 somewhere and managed and maintained. And so I  
3 capture the cost for that here based on a survey that  
4 my firm had done determining datacenter costs. We've  
5 put that into this model.

6 Q And then you allocated?

7 A We allocated it. I allocated across SMS and MMS,  
8 again, based on the proportional relationship year  
9 over year between the two messaging types.

10 Q Okay. And so can you tell us your -- can you  
11 summarize for us the Sprint identified costs in this  
12 category and then your allocations of costs in this  
13 category?

14 A Certainly. So Sprint had identified nothing in  
15 this case. I added \$301,166,439 as it relates to the  
16 capital, or the equipment costs. I also added  
17 \$333,374,678 as it relates to those datacenter costs  
18 to support all that hardware.

19 Q Is that \$33 million?

20 A Yes, \$33,374,678. Thank you. And the total  
21 there is \$334,541,116. Shall I read the last two for  
22 the record?

23 Q Why don't you read the allocations so that we  
24 line up across --

25 A Okay.

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1 Q -- our categories?

2 A All right. So for SMS, it was allocated  
3 \$322,080,129, and MMS was allocated \$12,460,987.  
4 And, again, that's from 2006 until 2014.

5 Q Okay. Anymore categories of costs? Next bucket?

6 A Yes.

7 Q All right. What do -- what do we show here?

8 A Okay. So here, we've got Sprint incremental  
9 network costs. There was a conversation that Dr. Akl  
10 was engaged in for quite a while regarding what's in  
11 the network, what's not in the network, and that sort  
12 of thing. I don't mean to opine on those issues or  
13 retread that ground, but Sprint had identified, and I  
14 think rightfully so, in 2010, that it incurred  
15 network costs because they had to carry the payload,  
16 if you will, of the information comprised in an MMS  
17 on the network, just like they would carry data. And  
18 so after participating in the deposition process and  
19 looking at discovery and looking into their cost  
20 studies, it was clear that in 2010, they had captured  
21 \$5 million for these network components in that one  
22 year. And rather than not caring for that on a going  
23 forward basis, even though we were told through the  
24 discovery process and in deposition that the network  
25 finance people would give that kind of data to the

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1 messaging finance people who track this stuff, it --  
2 those data didn't show back up in their studies.

3           So what I did here was take the data from  
4 2010, I unitized it, so I took dollars divided by  
5 messages, and then I multiplied by the appropriate  
6 number of messages going backward in time and forward  
7 in time so as to at least give some treatment for the  
8 cost that the Sprint network team told, as I  
9 understand it, the messaging product team that needed  
10 to be captured in their studies.

11           Now, I'll add one note. I did add \$510,858  
12 in 2010. Earlier, I talked about there was some  
13 volumetric information that was missing in certain  
14 years, and so there was volume that was missing in  
15 Sprint's calculations in that year even though it  
16 included the network costs. So I made sure to  
17 multiple those figures by the volume that we knew  
18 existed just to make sure I captured that, and that  
19 was an extra \$510,000.

20           So in total, Sprint had identified  
21 \$5,855,538 in these network costs. I added an  
22 additional \$81,012,804, for a total network costs for  
23 MMS only of \$86,868,342.

24 Q Did you identify any network costs for SMS?

25 A Setting aside the argument of what the network

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1 is, I did not -- I did not calculate network costs  
2 that would be considered, in my terminology, the  
3 radio access network: the cell towers, the bay  
4 stations, and the -- you know, that equipment. But I  
5 did capture obviously \$300 or \$400 million of capital  
6 costs that relate to providing SMS.

7 Q Sure. And what was your basis for not including  
8 the radio access costs that you just described?

9 A So my basis is three-fold. First of all, I had  
10 seen public information that makes clear SMS  
11 messaging travels in that signaling space, the SS7  
12 space, that had already existed in the networks, and  
13 that when those messages travel in that space they  
14 don't kick anything out, they don't force the network  
15 engineers to have to go build more equipment and buy  
16 more equipment. And so they're considered like a  
17 free rider. The reality is the network was built for  
18 voice communications. They were able to add  
19 messaging into that free space. I understood that  
20 from the public documents. I had a conversation with  
21 Dr. Akl about that very thing. He confirmed my  
22 understanding there. And then I think we saw clips  
23 of the deposition of Mr. Yarkosky, who testifies on  
24 behalf of Sprint as a -- as a fact witness. He's a  
25 manager in the company who sort of confirmed that



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1 same thing, that is they didn't build extra towers,  
2 they didn't buy extra spectrum, and they didn't --  
3 they didn't add additional BTSs, et cetera, in order  
4 to support the messaging services. Everything was  
5 already there.

6 Q Okay. Now, we've discussed vendor costs,  
7 customer care costs, labor costs, capital costs, and  
8 the associated datacenter costs, and these network  
9 costs. Are there any other categories of costs that  
10 you believe should have been included in your  
11 analysis?

12 A Not unless there's a slide that comes next that I  
13 have forgotten.

14 Q All right. So --

15 A No, I mean in all seriousness, I've captured the  
16 incremental costs for messaging: labor, vendor costs,  
17 hardware, capital carrying costs over time. I think  
18 I've captured everything that is incremental or  
19 additional because Sprint decided to sell messaging  
20 services.

21 Q And so after having gone through your analysis  
22 with respect to each of these buckets, what did you  
23 do?

24 A I gave the numbers to counsel and Ms. Riley, I  
25 totaled them up, and I understand they're used in Ms.

1 Riley's calculations. But when you see here just  
2 kind of as a summary for SMS messaging, I took a  
3 figure which had been about \$201 million and I turned  
4 it into \$759,959,674 based on my review of the cost  
5 study information that Sprint had provided, my review  
6 of the documents that they had provided, and  
7 everything that I could find related to those  
8 additional costs that the company had to spend in  
9 order to sell those services. Likewise, I added  
10 \$179,949,296 to MMS for a total of \$352,035,006 for  
11 MMS.

12 Q Okay. What's the impact on the profit margin  
13 from which Ms. Riley calculated damages in this case  
14 of your additional costs?

15 A So for every additional dollar I add, the margin  
16 percentage goes down and there's less money on which  
17 Comcast could claim a royalty payment or request that  
18 that be made through an order here. So the bigger my  
19 numbers are, the less money Comcast gets and the more  
20 Sprint would keep.

21 Q Now, remind the jury of the total amount of  
22 incremental costs that you calculated.

23 A \$1.112 million.

24 Q Thank you.

25 THE COURT: Why don't we recess for lunch,

1 Mr. Riopelle? It's 12:35. We'll recess for an hour  
2 until 1:35. I'll give you my mid-day instructions.  
3 Do not discuss the case among yourselves. If anyone  
4 tries to talk to you about the case, say nothing to  
5 them and report that to me. Make sure you take your  
6 juror notebooks and your binders into the jury room  
7 and leave them. See you back here 1:35.

8 (Jury out, 12:36 p.m.)

9 THE COURT: We'll fix that.

10 (Pause in proceedings.)

11 THE COURT: We're in recess. You may step  
12 down.

13 THE WITNESS: Thank you, Your Honor.

14 THE COURT: Michael, will you fix that?

15 AUDIO OPERATOR: Sure.

16 THE COURT: All right. We're in recess.

17 (Luncheon recess taken, 12:37 p.m.)

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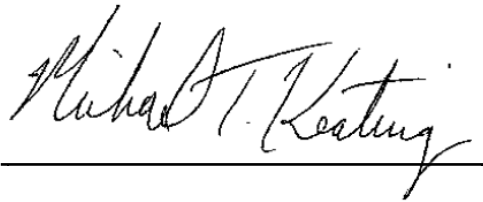


CERTIFICATION

I, Michael Keating, do hereby certify that  
the foregoing is a true and correct transcript from the  
electronic sound recordings of the proceedings in the  
above-captioned matter.

2/6/17

Date

A handwritten signature in cursive script, reading "Michael T. Keating", written over a horizontal line.

Michael Keating